The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

TRUSTEES

OF THE

WORCESTER STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1940

DEPARTMENT OF MENTAL HEALTH

PUBLICATION OF THIS DOCUMENT APPROVED BY THE COMMISSION ON ADMINISTRATION AND FINANCE
550—9-41—Req. P-243

OCCUPATIONAL PRINTING PLANT
DEPARTMENT OF MENTAL HEALTH
GARDNER STATE HOSPITAL
EAST GARDNER, MASS.

WORCESTER STATE HOSPITAL

Post Office Address: Worcester, Mass.

Board of Trustees

William J. Delahanty, M.D., *Chairman*, Worcester.
Anna C. Tatman, *Secretary*, Worcester.
Josephine R. Dresser, Worcester.
John L. Bianchi, Worcester
Robert R. Portle, Worcester
Harry F. Kenney, Boston
Robert A. Burns, Auburn

Resident Staff

Walter E. Barton, M.D., *Acting Superintendent.*

Psychiatric Service

William Malamud, M.D., *Clinical Director.*
Lonnie O. Farrar, M.D., *Medical Director Summer Street Dept., Supervisor School Clinics.*
Paul S. Wolfe, M.D., *Psychiatrist in charge of Female Reception Service.*
Harold Greenberg, M.D., *Assistant.*
Joseph M. Zucker, M.D., *Clinical Assistant.*
Benjamin Simon, M.D., *Psychiatrist in charge of Male Reception Service.*
Edmund F. Walker, M.D., *Assistant.*
Lincoln Lebeaux, M.D., *Clinical Assistant.*
S. Harvard Kaufman, M.D., *Psychiatrist in charge of Continued Treatment Service.*
Stanley Peal, M.D., *Assistant.*

Medical and Surgical Service

Embrie J. Borkovic, M.D., *Director.*
William Freeman, M.D., *Pathologist.*
Bertram T. Spira, M.D., *Assistant Male Medical Wards.*
Martin Dollin, M.D., *Assistant Female Medical Wards.*
Simon G. Harootian, D.M.D., *Dentist.*

Research Service

Roy G. Hoskins, Ph.D., M.D., *Director.*
Andras Angyal, Ph.D., M.D., *Resident Director of Research.*
Joseph M. Looney, M.D., *Director of Laboratories.*
Harry Freeman, M.D., *Internist.*
William L. Holt, Jr., M.D., *Psychiatrist.*
Otto Kant, M.D., *Psychiatrist.*
Nathan Blackman, M.D., *Psychiatrist.*
Morton A. Rubin, Ph.D., *Neurophysiologist.*
David Shakow, M.A., *Chief Psychologist.*
George L. Banay, Ph.D., *Medical Librarian.*

Out-Patient Department

Robert Kemble, M.D., *Director Child Guidance Clinic.*
Erel Guidone, M.D., *Director Adult Mental Health Clinic and Supervisor of Family Care.*

Nursing Department

Katherine R. Dick, B.S., R.N., *Superintendent of Nurses.*
Mary L. Weston, B.S., R.N., *Assistant Superintendent of Nurses.*
Anna V. Kaskan, B.S., R.N., *Educational Director.*

Consultants

Ernest L. Hunt, M.D., *Surgery.*
Arthur Brassau, M.D., *Surgery.*
Franklyn Bosquet, M.D., *Surgery.*
Joel M. Melick, M.D., *Gynecology and Obstetrics.*
Donald K. McCluskey, M.D., *Gynecology and Obstetrics.*
Lester M. Felton, M.D., *Genito-Urinary Surgery.*
John O'Meara, M.D., *Orthopedic Surgery, Roentgenology.*
Oliver H. Stansfield, M.D., *Internal Medicine.*
Erwin C. Miller, M.D., *Internal Medicine.*
Jacob Goldwyn, M.D., *Neurology.*
John T. Carmody, M.D., *Neurosurgery.*
Julius Tegelberg, M.D., *Oto-laryngology.*

ROSCOE W. MYERS, M.D., *Ophthalmology.*
PHILIP H. COOK, M.D., *Roentgenology.*
THEODORE VON STORCH, M.D., *Encephalographic Roentgenology.*
GEORGE M. DIX, M.D., *Dermatology.*
OSCAR A. DUDLEY, M.D., *Epidemiology.*
HUDSON HOAGLAND, Ph.D., *Neurophysiology.*

HEADS OF ADMINISTRATIVE DEPARTMENTS

JOSEPH P. MOYNIHAN, *Acting Steward.*
MARGARET T. CRIMMINS, *Treasurer.*
WARREN G. PROCTOR, *Engineer.*
ANTON SVENSON, *Forman Mechanic.*
JAMES MISTARK, *Head Farmer.*
LILLIAN G. CARR, *Matron.*
MARION C. ELY, *Head Social Worker.*
MARY B. BEACH, O.T.Reg., *Director of Occupational Therapy.*

TABLE OF CONTENTS

TRUSTEES' REPORT

To His Excellency the Governor and the Honorable Council:

The trustees of the Worcester State Hospital respectfully submit the 108th annual report of the hospital, appending a record of the various departments as reported by the acting superintendent, Walter E. Barton, M.D. and the report of the treasurer, Miss Margaret T. Crimmins, together with other statistical information.

It was with regret that on May 14, 1940 the trustees accepted the resignation of Dr. Wm. A. Bryan, Superintendent of the Worcester State Hospital for the past 19 years. He left to become Superintendent of Norwich State Hospital in Connecticut. Under the able leadership of Dr. Bryan the hospital was recognized as one of the most progressive of psychiatric institutions. The trustees took immediate steps to effect a continuity in policy and named Walter E. Barton, Assistant Superintendent, and for nine years a member of the staff of the hospital, to fill the position. As the fiscal year ended this appointment had not been confirmed by the Commissioner of the Department of Mental Health.

It is our hope that this important post will soon be filled as a settled administrative policy is desirable where far-reaching reorganization has been necessitated through staff changes.

The resignation of the Steward, Herbert D. Smith, after 33 years of honorable service to the State by reason of ill health, has left another gap of great importance in the organization. The trustees, after a careful search, selected Joseph P. Moynihan, Assistant Steward to take this place. Higher State authorities have not taken any action toward the filling of this post of business manager. It is difficult to see how the hospital can operate without satisfactory business management.

We urge the Department of Mental Health to cooperate with the trustees in building an organization as capable as the last one in the field of progressive psychiatry.

The following projects, completed during the year, added to the efficiency of operation or protected existing investments. New piazzas were constructed at the farm house, dormer windows and doors were painted, tunnels cemented and new linoleum laid. Plumbing was improved at Summer Street Division and in the Male Home. The water supply at the Hillside Farm was made safe by connecting to Shrewsbury city supply. The hurricane-damaged cow barn at Hillside was torn down and the main barn remodeled to accommodate the milking herd.

The laundry which was so badly needed two years ago is an even greater need today. Constant breakdowns of dilapidated machinery keep repair crews busy, destroy linen and clothing,—divert needed money from other repairs, and cause employees to work overtime almost daily. Occupational hazards from exposed machinery and unhealthful surroundings are such as to nullify much of the therapeutic value of work here by patients.

Kitchen equipment requested two years ago and not approved now is an absolutely imperative need. Ovens are rusted through and steam kettles and warmers so inadequate as to make the daily preparation of food for more than 3,000 eaters a trial of patience and ingenuity.

It is still difficult to supply hot food to the medical and surgical ward patients. Patients also must be carried by litter from floor to floor. Heavy oxygen tanks and expensive equipment have to be carried by hand as there are no elevators. We need elevators in our medical building to move patients, food and equipment.

Fire protection should be extended during the year. If possible a building a year should be remodeled with reinforced concrete floors and fire-proof ceilings to make these old buildings safe. An extension of kalomine doors and sprinklers is desired. Buildings require repointing and window repairs.

A central store house would conserve personnel now spread over the many basement storage points and bring about a more complete control over distributed supplies that in time would undoubtedly result in material savings. This might be built in the present laundry building without new construction.

There has been a trend of late in this state toward greater centralization of authority for expenditures, and blanket covering-orders. Many are for an entire year's supply of goods. Under this trend responsibility is not transferred to the state departments along with control over money and purchases. This greatly increases the burden upon the individual hospital. The difficulties of budgeting and financial control have increased many times, and more than ever, the control of distributed supplies becomes important.

Foodstuffs—dishes—cloth and many supplies are to be purchased for an entire year in advance yet the hospital has not been furnished the means of control, nor the necessary facilities for storage. It becomes easy to see the danger of costs mounting without improving standards.

The board wishes to acknowledge the spirit of cooperation and loyalty of all the employees of the hospital who made possible continued high standards of care and treatment of patients during this trying period of transition and change.

Respectfully submitted,

WILLIAM J. DELAHANTY, *Chairman*
ANNA C. TATMAN, *Secretary*
JOSEPHINE R. DRESSER
JOHN L. BIANCHI
ROBERT R. PORTLE
HARRY KENNEY
ROBERT BURNS

Trustees.

SUPERINTENDENT'S REPORT

To the Trustees of the Worcester State Hospital:

The year 1940 was marked by far reaching changes in the administration of the hospital. The resignation of the Superintendent, Dr. William A. Bryan, the Steward, Mr. Herbert Smith, the Superintendent of Nurses, Mrs. Katherine Steele, the Head Occupational Therapist, Miss Wanda Misbach, as well as important members of the medical staff, all within a few short months, necessitated much rebuilding. At the time of this report the two most important posts of superintendent and steward are still unfilled.

It is under these circumstances that we are proud to be able to report considerable progress after all.

Steps toward improved employee morale, so essential to good patient care, were taken first through the extension of *employees' representation.* The committee, intrusted with ruling on eligibility for sick leave compensation, was reorganized to include all employee groups. The Graduate Nurses Club and the "Mutual Benefit Society," the latter established to provide nursing care and other benefits to sick employees, provided organizational contacts; a *program of social activities* contributed to improved employee spirit. The Summer Street Social Club—the Graduate Nursing Club and Mutual Benefit Societies all held numerous parties. Each time patient dances were held the orchestra was available for an employee party following. A basket ball team from the attendant group was followed through a remarkably successful season by a large group of interested persons. Seminars were held in the evening for general staff education. Student groups particularly used these opportunities. Thirdly, *sick-leave compensation* was found to be worth while. Compensation for 12 days of illness in a single year was allowed to persons who had 12 months of service. During the year December 1, 1938 to November 30, 1939, 299 employees (45% of the 665 employed) were sick. 200 qualified under the sick-leave plan. The cost of the protection was $4,214.55. Although there seemed to be a general increase in illness, the security of income and satisfaction in the job increased.

The world crisis has depleted our employee ranks, and salary advantage in private industry has diminished the number of applicants. The efforts to achieve employee contentment became more important at this time than before.

Worcester has had a high rate of *accidents* reported to patients that could not be explained entirely on the basis of greater completeness of reporting and thoroughness of examination. It was only logical that an attempt should be made to lower the rate of injury through education, improved patient supervision, and removal of hazards.

On the female side accidents fell from a peak of 232 in one month to a low point of 116 and on the male service 140 became 88, through concentrated effort.

During the year 1939 an average of 670 patients had 39,415.7 hours of seclusion and 460 patients had 15,599.65 hours of restraint. It was possible to reduce this figure to 67 patients in seclusion 1,061.28 hours and 338 patients in restraint 7,027.1 hours. Seclusion was permitted for short periods and only in exceptional instances. With adequate ward coverage it could be abolished entirely. The use of restraint was confined solely to the confused patient on the medical ward and to the patient under insulin shock. This reduction was accomplished with a decrease in the use of hydrotherapy, a decrease in the accident and injury rate but an increase in the activity and ward program.

Food service was improved throughout the hospital. The institution of a weekly control sheet was made possible checking of food stuffs used with ration allowance and tended to stabilize costs at a lower level. It also became evident that with improved

supervision of patient workers, and elimination of waste, further improvements in the dietary could be achieved.

Kitchen hygiene was stressed. To accomplish this, pan-scouring details, replacement of worn out tins and kettles, and a new three compartment sink were installed at both the Main and Summer Street divisions. Our kitchens and cafeterias, the first, and once the finest in the state, now lag behind many of the others. Rather extensive modernization should be undertaken in the near future.

Emphasis on the neat appearance of patients has led to an extension of *clothing* purchases to bring up inventories to a reasonable minimum. A campaign to encourage relatives to furnish clothing was undertaken. This needs intensification as the goals have not yet been achieved. Until the queer and absurd appearing patients, the man with the "high water" pants and a coat too long, is a thing of the past, our task will be incomplete.

The recreational program was greatly extended. A director of recreation, John Cronan, was appointed from the attendant group. Patients were all taken out of doors during the summer and fall and arranged in groups according to social adjustment in the hospital. Appropriate outdoor activities and games made these periods interesting and health building. Trips to the circus, museums, swimming parties, picnics and outings were made, on a scale hitherto not possible, through a provident gift fund. The energies of the recreational director have introduced physical activities and games on all wards during fall and winter months as well.

Lastly—an articulate standard practice has become a reality in the publication of a number of manuals which make it easy to secure accurate information about policies and procedures. This was done with the help of the W.P.A.

We believe employee morale has been strengthened (in spite of the uncertainty of changing administrations), patient appearance improved, and hazards reduced, while standards of treatment have been kept at their previously high level.

Changes in the Staff

In the past year the following changes have been made in the resident staff:

Physicians who left:

Dr. William A. Bryan, Superintendent, to Superintendent, Norwich State Hospital, Norwich, Connecticut.

Dr. Norman Render, Psychiatrist in charge of Continued Treatment Service, to Clinical Director, Cherokee State Hospital, Cherokee, Iowa.

Dr. Hans Molholm, Assistant Physician to Cleveland Child Guidance Clinic, Cleveland, Ohio.

Dr. Ellsworth F. Waite, Assistant Physician, to private practice, Wheelersberg, Ohio.

Dr. Conrad Wall, Senior Research Psychiatrist, to private practice in Worcester.

Dr. Phyllis D. Schaefer, Assistant in Child Guidance Clinic, to private practice in Summit, New Jersey.

Dr. James Watson, Director Adult Mental Health Clinic and Supervisor of Family Care, to Director, Division of Mental Hygiene, State of North Carolina.

Promotions:

Dr. Walter E. Barton, Assistant Superintendent, to Acting Superintendent.

Dr. William L. Holt, Psychiatrist in charge of Female Reception Service, to Senior Psychiatrist, Research Service.

Dr. S. Harvard Kaufman, Assistant Physician, to Senior Psychiatrist in charge of Continued Treatment Service.

Dr. Harold Greenberg, Clinical Assistant, to Assistant Physician.

Dr. Martin Dollin, Clinical Assistant, to Assistant Physician.

Dr. Erel Guidone, Assistant Physician, to Director Adult Mental Health Clinic and Supervisor of Family Care.

Katherine R. Dick, Assistant Superintendent of Nurses, to Superintendent of Nurses.

Mary B. Beach to Director Occupational Therapy Department.

New Appointments:

Dr. Paul S. Wolfe, Clinical Director, Colorado State Hospital, to Senior Psychiatrist in charge of Female Reception Service.

Dr. Selwyn Brody, Resident in Psychiatry, Mount Zion Hospital, San Francisco, to Clinical Assistant.

Dr. Max A. Sherman, Assistant Alienist, Bellevue Psychopathic Hospital, to Junior Psychiatrist, Research Service.

Dr. Edmund F. Walker, Senior Physician, Middletown, Conn., State Hospital, to Junior Physician.

Dr. Joseph M. Zucker, Fellow in Neuropathology, Mount Sinai Hospital, New York City, to Clinical Assistant.

Dr. Lincoln Lebeaux, Interne, Worcester City Hospital, to Clinical Assistant.

Marion C. Ely to Director of Social Service Department.

Mary Weston to Assistant Superintendent of Nurses.

Retirements and Resignations:

Herbert W. Smith retired on October 16, 1940 from the position of Chief Steward.

Charles Nord retired on April 17, 1940 from the position of carpenter.

Joseph Pichette, an attendant at Summer Street Department, retired on June 24, 1940.

Elizabeth J. Ward, a housemaid, retired on August 1, 1940.

Mary Martin, a housemaid, retired on March 19, 1940.

Katherine M. L. Steele resigned as Superintendent of Nurses, February 10, 1940 to become Director of Nurses at the Hospital Municipal Psiquiatrico, Caracas, Venezuela.

Wanda Misbach resigned as Director of Occupational Therapy, July 27, 1940 to become Director of Occupational Therapy at the Hospital Municipal Psiquiatrico, Caracas, Venezuela.

Barbara Estes resigned as Director of the Social Service Department, June 8, 1940.

Deaths:

Maurice Scannell, Chief Male Supervisor died on March 5, 1940.

Movement in Population

A total of 531 patients were admitted for the first time to a mental hospital in the year 1940. This is 21 less than in 1939 and 11 fewer than in 1938. Readmissions numbered 229, an increase of 8 over last year. There were 519 discharges to the community, an increase of 386 were classified as recovered, 311 were discharged as improved, 27 unimproved and 95 were without psychosis. Transferred to other hospitals were 30. At the end of the year 2,401 remained in residence at the hospital and 437 patients went on visit or were otherwise absent. Of these latter 140 were in family care.

Among first admission, the following mental disorders were the most common:

Dementia Praecox, 94	Involutional Melancholia, 37
Senile Psychosis, 80	Manic Depressive Psychosis, 31
Psychosis with Cerebral Arteriosclerosis, 55	Psychoneuroses, 30
Alcoholism with Psychosis, 38	Syphilitic Meningo Encephalitis, 19

Discharged patients came chiefly from the following types of psychoses:

Dementia Praecox, 87	Alcoholism with Psychosis, 40
Psychosis with Cerebral Arteriosclerosis, 28	Psychoneuroses, 23
Manic Depressive Psychosis, 21	

Psychiatric Activities

The activities of the clinical staff are presented under a series of functions which converge onto the main goal of the psychiatric department, namely, the care and treatment of those who suffer from personality maladjustment and the prevention of the development of such disorders in the community at large. Broadly these functions can be described as consisting of the following: (1) Care and treatment of patients admitted to this hospital; (2) Investigation into the general nature of these maladjustments, leading to a better understanding of their causes and improvement of their treatment; (3) Education of workers who wish to be trained in psychiatry, education of medical men in the general field and education of community at large; (4) The organization of plans and measures leading toward a program of preventive medicine.

I. *Adequate care, treatment and adjustment of the patients admitted to this hospital.* — The procedures leading to this function have been organized during the last year into a smoothly working plan which aims at the proper diagnosis and understanding of the patients admitted, institution of the most adequate forms of treatment and a study of the course of progress with a view to making the most advisable disposition. Daily ward rounds are conducted on the various services by the Clinical Director and the staff of the respective services at which all new patients are seen shortly after admission and a plan of study and treatment is organized. At the end of three weeks after admission, these patients are seen again and a final diagnosis as well as review of the plan of treatment and disposition are thoroughly discussed. Some of these cases that present greater problems in arriving at a conclusion and who are particularly suitable for instruction are

presented at general staff conferences in which not only the clinical staff but also other workers such as nurses, psychologists, social service workers and occupational therapists are present. Frequent consultations are carried on with individual members of the staff on various problems relating to the care and treatment of individual patients or other problems arising on the various services. Of specific methods of treatment that have been carried on through the year we would emphasize especially psychotherapeutic measures, metrazol and insulin treatment, anti-luetic and other forms of treatment of the organic diseases, social therapy and occupational treatment. Some of these and their results are submitted in detail.

The Administration of metrazol and insulin shock treatment has been continued with very little change since the Special Therapy Unit was set up in July, 1939. Responsibility for administration of these therapies was placed in the hands of the Junior Physician on the Continued Treatment Service. An effort was made to preserve close contact with the physicians on the Admission Services as 86% of the metrazol patients and all of the insulin treated patients were on the Admission Services.

The selection of treatment to be given was decided by Clinical Director in consultation with the physicians of the Staff. Uniform standards for study of the physical condition were set up in order to minimize the physical risks. Before the patient is accepted for Shock Therapy it must be recommended in a Staff note, an x-ray of spine and chest must be negative for tuberculosis and bone disease, the blood pressure and heart must be normal, and relatives must have approved the treatment.

Fractures of the vertebrae have been reported by all physicians doing extensive work with metrazol who have taken x-rays of the spine after treatment. We have taken x-rays of every patient's spine both before and after treatment and whenever back pain was complained of during the course of metrazol therapy. Whereas others report 10% to 40% vertebral fractures, we encountered only 5% as a result of special effort to prevent their occurrence. No fractures were encountered in 50 male patients treated on a new modification of the Bennett fracture board which prevented by hperflexion of the spine.

In spite of careful selection of physically healthy patients, one insulin treated patient died while in treatment. Three metrazol treated patients died but in only one case could the death be directly related to the treatment, the others dying 6 and 9 months after treatment was stopped (of tumor of the kidney and pneumonia respectively).

Results of Shock Therapy continue to be good. Of 80 male patients treated with metrazol 82.5% improved and 59% were able to leave the hospital. Of 135 female patients treated with metrazol, 79% improved and 55% left the hospital. Of the 56 insulin treated patients 79% improved and 68% went out of the hospital. Of the metrazol patients sent out 5% returned and of the insulin patients 14% returned. Insulin treatment was suspended during hot weather and again when insufficient personnel were available. For this reason the average number of insulin comas given was only 14 per patient instead of 25 as had been given in the preceding year and is generally recommended. The average number of metrazol convulsions given was cut from 15 the preceding year to 7. The better selection of patients given insulin and metrazol therapy is reflected in the higher number now sent home after completion of treatment; 60% in the past year as compared to 49% in the preceding year.

Our experience with these methods of treatment justifies the conclusion that in certain types of mental diseases they exert a definitely good effect even if in some of these it is only temporary. The best results with metrazol treatment were obtained in patients showing behaviour disturbances, tension, excitement or mood deviation regardless of diagnosis. Insulin seemed to be most helpful in patients who showed disturbances in thought content, paranoid trends and associative defect. Psychotherapy in terms of exploration, education and guidance was utilized with preference where psychogenic factors were evident in the etiology. Drugs, such as Sodium Amytal, which facilitate contact with patients who are reticent in the discussion of their problems were very useful as aids in psychotherapy. A number of other medications that have been suggested by some observers were tried but without any great effect. This applies to such methods as sulphur in oil, deep narcosis, silbesterol in the involutional psychoses, and others.

In the treatment of alcoholic psychoses where in the pathology of which food deficiencies play a major role, the use of vitamin therapy has proved to be of the highest value. In the treatment of the epileptic syndromes the use of phenobarbital and sodium

dilantin has met with satisfactory results. Of the methods of treatment related to the purely medical techniques we would stress as particularly helpful the judicious and systematic application of the various forms of hydrotherapy, occupational therapy and recreation. The last has become particularly well organized under the guidance of our new recreational director. Games, sports, exercises all help to give new zest and interests to patients who tend otherwise to withdraw into themselves and isolate themselves from the outside world. With our increased rate of admission, however, and the constant influx of new patients these activities require a higher quota of well trained personnel and we would urgently recommend that this be given serious considerationn. The increased admission rate also brings in the urgent need.

Summer Street Department

The Summer Street Department cares for 260 Male and 325 Female patients with 110 employees, including 72 who work on the ward. These patients are classed as continued treatment cases, are relatively quiet and do not require specialized treatment, such as hydrotherapy or intensive medical treatment. Five patients have been dismissed on visit and three placed in family care.

A well equipped barber shop and personnel hygiene parlor are manned by skilled workers, assisted by patients. The men are given three shaves weekly and a hair cut monthly and proper attention is given to the ladies' hair.

The male industrial department cares for about 12 patients under the supervision of an instructor and they prepare furniture for painting and do general carpentry and repair work. An outside group of 30 men care for the grounds and flower gardens. They spend some time during inclement weather making concrete blocks for building purposes. They made 423 wreaths for the holiday season in addition to shovelling snow.

Occupational therapy continues to be our main therapeutic approach and results in better morale and appearance of our patients, as well as a tendency toward recovery or prevention of rapid mental deterioration.

The occupational therapy department, during this year, has supervised the patients' monthly dances, community singing once a month, band concerts twice a month, and plays in the chapel. The O. T. Department has charge of the personnel for industrial therapy, getting workers for the different departments and keeping the workers on their jobs.

Library books and magazines are in charge of the O. T. Department. Library books are given out on the wards once a week to the back ward patients. The parole ward patients come to the O. T. office, where the library is maintained, for their books and magazines.

NURSING DEPARTMENT

General Care:

Each year a report is made of nurse-patient ratio. The nursing care is limited because of restricted ward personnel. The following data covers the average care per patient in this hospital for twenty-four hours:

1. Service for the Physically Ill, 1 hour, 9 minutes.
2. Acute Psychiatric Service, 40 minutes.
3. Continued Treatment Service, 30 minutes.

This is a quantitative study and the administrative and extra-nursing duties are included with the nursing care.

The Division on Nursing of the American Hospital Association and National League of Nursing Education, with approval from the American College of Surgeons, recommend that average bedside nursing care in each twenty-four hours should be:

Physically Ill Adult:

Medical and Surgical — 3 to 3½ hours.

Obstetrical:

Mothers and Babies — 2½ to 3 hours.

This is a qualitative study dealing with bedside nursing care. The National League of Nursing Education through the Committee on Mental Hygiene and Psychiatric Nursing, has recommended that one interesting activity during the coming year would be:

"B. Patient care in state institution, the number of hours of care per patient, the number of graduates and attendants giving the care."[1]

[1] Forty-sixth Annual Report of the League of Nursing Education, 1940, p. 108–11. 19–20.

A gross study of this nature was made two years ago in this hospital and has been reviewed and placed up to date each year.

Personal hygiene and ward hygiene has not decreased although there has been an increase in patient census.

Nurses continue to supervise ward classes in sewing and various other O. T. activities such as painting, wood working, etc.

There have been many changes in the nursing personnel during the year. The following table portrays the number of persons entering the service; the number leaving the service; the number ill; the number on vacation and days spent on vacation. The fact that 46% more employees left the hospital payroll than in the preceding year reflects the improved industrial opportunities for employment.

A plan for the rotation of supervisors on evening and night duty was established. The supervisors elected to spend two months' time on the 7:00 P.M. to 3:30 A.M. and the 11:00 P.M. to 7:00 A.M. duties.

The aim of this plan was to provide broader experience for the nurses on the medical and psychiatric wards. Every week, two or three persons were to receive the change so that patients and ward routine would not be disturbed.

The hospital is now covered with graduate nurse supervisors for the entire twenty-four hours.

Month	*Employees Services Began*	*Employees Services Ended*	*Employees Ill*	*Days Ill*	*Employees Vacation*	*Days Vacation*
December, 1939	12	15	29	137	3	36
January, 1940	17	13	40	150	10	114
February, 1940	17	19	50	215	14	144
March, 1940	21	20	28	207	13	114
April, 1940	27	27	31	184	17	160
May, 1940	18	21	17	147	15	141
June, 1940	36	40	27	183	29	288
July, 1940	28	22	55	342	40	472
August, 1940	36	45	46	257	49	499
September, 1940	31	34	46	220	23	191
October, 1940	30	28	25	187	10	79
November, 1940	28	22	47	252	18	75
Total for 12 months	311	306	431	2,561	241	2,313

The orientation lectures were increased from six hours to twelve hours in order to include all hospital routines.

A program in staff education has been set up. The nurses submitted the subjects they wished to have presented. A course in nursing arts was outlined.

Every two head nurses selected a topic to present to the class. The general duty nurse takes turns in demonstrating procedures to the class. Each procedure is amended and adopted for use in the Worcester State Hospital. These procedures should be of great assistance in establishing uniform nursing technique throughout the hospital. Through this method an attempt was made to provide opportunity for group expression and to create a desire to participate.

Social Service Department

By way of introduction for this year's report pertinent statistics are recorded as a basis for the analysis and the evaluation of the work of the Social Service Department.

New Referrals	1,833	Patients placed in Family Care during year	109
Cases carried forward from Nov. 1939	349	Patients placed in Family Care at beginning of year	145
Total number of cases	2,182	Patients placed in Family Care at end of year	132
Histories taken	242	Patients discharged from Family Care	5
Supplementary information obtained	1,109	Patients transferred from Family Care to visit	30
Investigations made	1,970		
Interviews with patients on wards	732		
All other interviews	4,271		

Last year there were 66 more referrals. This year the number of histories decreased (72 less) as well as the service of obtaining supplementary information (623 less) yet there was an increase of 398 interviews.

All statistics indicate that the services and function of the department evolve around short-term cases; the number of intensive cases is negligible. Yet we recognize, from a psychiatric point of view, that individuals need time to work through their problems, both individually and when under treatment; we are aware that immediate conflicts readily expressed are not always the basic problems; we appreciate that relieving en-

vironmental stress and strain does not help all individuals in their adjustment. The following case exemplifies the service which can be offered by intensive treatment.

There have been 1,833 referrals during this year and 349 cases were carried over from the previous year or a total of 2,182 cases was carried actively by the staff. Assuming that each of these nine workers in the department, five of which are students, carried full caseloads on a yearly basis, the individual worker would have responsibility for 242 cases annually. 1,970 cases were investigations, 242 cases were histories; a total of 2,112 cases or 96.7 per cent of the cases known to Social Service were short-term problems. Only 70 of 2,182 cases were not included under histories or investigations, however, the statistics do not indicate what specific problem or problems existed in these instances. A total of 5,003 interviews illustrates that each case would average approximately two interviews, and the statistics do not indicate whether the greater number of interviews were held in the hospital or in various communities.

Thoughtful study of these figures delineates the function of the department and at this time we are able to conclude whether the present work is directly related to the specific skill and knowledge of the psychiatric social worker who "is concerned with the release of resources in the immediate environment and capacities in the individual, which may give him a fuller and more satisfying life."[1]

Mr. X was admitted to the hospital in 1932, when he was twenty-two years old, because he had failed to make an adequate adjustment in his home. He was diagnosed Psychopathic Personality and remained in the hospital a number of years since he was unwilling to return to his home and likewise his family refused to care for him. Later in making two attempts to adjust to the community he led a "hit and miss" life, took odd jobs, only to be rehospitalized. This fall before being discharged he talked to a social worker who helped him make the arrangements he wished. An agency in a nearby city agreed to aid him until he found work. Immediately Mr. X took the initiative in applying for an apprenticeship which would result in his gaining employment in a skilled trade in spite of a physical handicap. The worker has continued seeing the patient weekly, giving him an opportunity to talk over his difficulties and plans with an understanding person. Mr. X has been out of hospital 4 months, and has been working all but two weeks of this period. He has met his expenses, saved some money and bought himself clothing. His interest in vocational guidance continues. He is now living with his sister who is delighted with his present achievements and he has made several friends, whereas in the past he was not a sociable person.

Statistics show that 190 new cases were referred to Family Care and 145 cases were already placed in Family Care homes, i.e., a total of 254 cases was known to Family Care during the year. In this given period 5 patients, (1.9 per cent of the total number of the patients) were discharged; 30 patients (11.8 per cent of the total number of patients) were transferred to visit, while 132 patients remained under Family Care at the end of the year. In 1939, 12 patients were discharged and the status of 24 patients was changed to visit, which does not emphasize any significant change in work carried on this year. These figures raise the question as to whether more patients could be helped, through case work treatment, to make a more adequate adjustment in society. Will the recent appointment of another worker in the department and the increase in board money paid by the State, make it possible to discharge more patients each year? Do these present figures indicate that the emphasis of the value of Family Care needs to be refocused?

To summarize, the work of the department is now focused on short-term services, although it is recognized that many patients need more intensive case work treatment. In attempting to meet this situation there is a need to revise our present statistics so that we may have more adequate data. We do not have specific information about the types of requests made to the department or the types of problems referred. Nor can we determine the problems presented in the intensive cases now carried, such as financial difficulties, marital difficulties, school problems, sex problems, vocational guidance, etc. No material is available about the number of office interviews versus interviews in the community. Obviously, a greater number of office appointments will mean better use of time and reduction of expenses. (Within the last two months we have been able to use a state car for out of town calls which conserves much of our time.) Every effort should be made to reduce office routine to a minimum with an optimum of efficiency. We should emphasize inter-agency cooperation so that patients receive the services of

[1] Hamilton, Gordon, "Theory and Practice of Social Case Work," page 12.

the organization which is best set up by society to meet his needs. Such cooperation will make it possible for more patients to receive case work treatment geared to help them to make more satisfactory adjustments in the community.

Occupational Therapy Department

During the past year the aims of the Occupational Therapy Department have continued to be the following:

1. To increase the facilities for organized therapeutic activity for the entire patient population and get as many patients as possible participating in them. These facilities now fall into three groups: the O. T. Shops and pre-industrial centers, the hospital industries, and the ward classes conducted by the nurses.
2. To plan events for special holidays and to cooperate with other departments in providing recreational activities throughout the year for all patients.
3. To educate the hospital personnel in the part they play and their responsibilities in such a program.

Since September this department has been without one staff member due to the readjustment of the payroll blocks. To meet this difficulty and take care of the needs of the patients, we have placed one therapist in charge of both male and female occupational therapy shops and the male and female nurses' supply rooms. Thus she can spend only half the day in each shop and depends on the occupational therapy students to run the shops alone when she is not there. We feel that this is taking care of the situation temporarily, but that this arrangement should not be permanent, since the patients need to be guided by a trained therapist during their entire time in the O. T. shops and the occupational therapy students also need more supervision. Because of this load of work on one therapist, we cannot carry on such close contacts with the nurses in their ward classes as we would wish.

The pre-industrial center on Washburn 2 has not been re-organized this fall because of the shortage of ward personnel. There is a need for this class.

In the past year we have seen an increase in the number of old people being admitted. In the present set-up of this department there is no place particularly suited to keep these people as active as possible. In the O. T. Shops are the newly admitted patients and those on special treatment. The industries are at such a distance from the wards on which the older people have lived they are unable to walk to and from work, yet are capable of doing more activity than provided by nurses' ward classes. Many of these patients could go a short distance to an industrial or pre-industrial center. The creation of such shops should be carried out in the next year for both women and men.

For more than a year a chart has been kept of the amount of articles completed on the female wards in nurses' ward classes, the number of patients in these classes, and the amount of destruction done during the same period, in order to see if there is a correlation between constructive and destructive activities. From the results it would seem justifiable to conclude that generally, as the amount of articles completed rises, the number of dresses, blankets, dishes, etc., destroyed dropped. We must, therefore, aim toward further cooperation with the hospital staff in drawing into constructive activity every patient possible.

This fall the affiliate nurse working on Washburn 3 has been conducting a special class with untidy patients using modeling clay in an attempt to sublimate the patients' desires for smearing. The results so far indicate that this is possible and suggest that this is one step toward constructive activity.

In the past year 70% of the men and 49% of the women were working in hospital industries, and 10% were in the O. T. Shops. Twenty-three per cent of the women participated in ward occupational classes conducted by the nurses, while only 8% of the men were so occupied. Of the remainder 15% were physically ill and so not kept busy.

Mr. John Cronan, a member of the nursing personnel, was assigned as recreational director in this hospital. Under his guidance and with the cooperation of the nursing staff, patients were supervised in playing ball, games and calisthenics. The patients were less disturbed, slept better and appetites improved following this exercise.

During inclement weather, the patients follow the program established for ward recreation. This includes dancing, ward parties, group reading, special radio programs, marching, calisthenics, the weekly moving picture, and the attendance to religious duties. To this list may be added the season's festive days which are celebrated with special programs and parties.

This department has planned special talks for the patients and nature walks given by the staff of the Natural History Museum of Worcester. We cooperate with the music department in evenings of community singing and with the weekly art classes.

During the next year we aim to develop the facilities of this department along the lines suggested above so that it will be better able to meet the needs of all the patients.

Hydrotherapy Report

In the past year the number of wet sheet packs given showed a considerable increase though the number of patients receiving this form of treatment was only slightly greater than last year. A total of 722 patients received 28,906 hours of pack treatment compared to 19,755 hours the preceding year. The use of continuous tub baths declined in the same period. Only 1,251 patients received 70,818 hours of baths compared with 1,711 patients receiving 126,203 hours the year before. This change is probably related to the increasing value of shock therapy and occupational therapy in meeting the problems of the disturbed patient previously treated with hydrotherapy. Some 489 patients received 7,654 treatments in the tonic suite where colonic irrigations, electric light baths, vapor baths, saline baths, salt glows, scotch douches, needle sprays, fan douches, foot baths, sitz baths and tub shampoos are given.

Chaplain's Department

The activities of the Protestant Chaplain during the year may be roughly divided into those dealing directly with patients and those in the area of religion and health, though not directly concerned with the patients. Past reports have dealt more in detail with the work directly with the patients. The bulk of this report will deal with the other type of activity, though this does not mean that the work with and for patients has been neglected during the past year.

The work directly with patients centers in religious services and in personal visits with patients. Services were held each Sunday morning at both the Main Hospital and at the Summer Street branch, the average attendance at these being three hundred. Individual patients have been seen on the ward through a system of routine visits, through requests by members of the staff or the patient's relatives or clergyman, or by request of the patient. The value of such visitation varies of course from patient to patient, and it is the task of the chaplain to discover those patients to whom he can render a significant service.

On the more popular level of education, two courses dealing with problems of adjustment in marriage were given. One of these sponsored by the Y. M. C. A., the other by three Worcester churches. In addition to these, seventy-two talks were given to various groups in the community, twenty-two sermons were delivered in churches in the community and two sermons given on a local radio station. For a period of three months the chaplain conducted the Sunday morning services in the Tatnuck Congregational Church in the absence of the minister. He also gave a paper on the task of the clergyman in the area of mental health before the Massachusetts Mental Hygiene Conference at Springfield.

Another type of activity in the broader field of religion and health has been that of maintaining a working relationship between the hospital and the community organizations. He has served as secretary of the Department of Religion and Health of the Worcester Council of Churches; he has also been a member of the Committee on Religion and Health of the Federal Council of Churches. He has served as a theological supervisor and member of the Board of Governors of the Council for Clinical Training, a national organization which trains theological students in hospitals and prisons. He has been a member of the Committee on the Institutional Ministry of the Massachusetts Council of Churches. Working relationships between the Worcester Y. M. C. A. and the Worcester Y. W. C. A. have been established and maintained by the chaplain.

There has also been some activity in the matter of publications. An article "Mental Hygiene and the Clergy" appeared in the Mental Hygiene Bulletin of the Michigan Society for Mental Hygiene, December, 1939. Short articles entitled "Religion and Health" were published in seven issues of the *Pilgrim State News*, a Congregational Church paper. An article, "Our Ministry to the Ill" appeared in *Zion's Herald*, October 16, 1940. Another paper, "The Clergy and Community Education for Mental Hygiene" has been accepted by *Mental Hygiene* for publication early in 1941.

Through the Council for Clinical Training, the Committee on Religion and Health of the Federal Council of Churches, and the Department of Religion and Health of the

Worcester Council of Churches the chaplain received a grant from the Josiah Macy, Jr. Foundation to defray expenses incident to the preparation of a manuscript of book length on the problems of religion and health. This work has progressed during the year, and will be completed during 1941.

In conclusion, we wish to express our gratitude to the Massachusetts Congregational Conference and Missionary Society for their continued support of this work during the past year.

Radio Department

After ten years' experimentation with our radio equipment in which we have tried to utilize its possibilities to the utmost advantage we have eventually arrived at the point where most of the radio activities are of a routine nature. However, if we compare a 1932 daily program with one of 1940, it will be easy to see that the equipment is carrying quadruple the load that it carried eight years ago. The largest single addition to this load is the paging of staff members. This system, inauguated last year, has proven so successful that it has been continued. Another additional daily feature is the playing for two hours daily recorded march music for purposes of marching and exercising on disturbed wards. Summed up briefly the radio programs that emanate from Station WSH consist of the following items: 1. Programs from the outside that are picked up on our heavy duty antennas and re-broadcast. 2. Hospital programs, consisting of news bulletins, therapeutic programs, patient programs, recorded programs and marching programs for disturbed wards. 3. Doctor's calls, escape calls and announcement of clinics.

During the past year an excellent arrangement has been made with the WPA musical units in which we were to get a musical unit once a week throughout the year. The WPA Orchestra alternated with the WPA Band. In the fall and winter months these concerts are held in the chapel with mental hygiene propaganda being read via radio between numbers. During the summer months the units play out-of-doors.

The weekly drawing classes mentioned in last year's report have been continued with decided success. For three weeks in August the Worcester Art Museum sponsored an exhibition of "Drawings and paintings by Patients at the Worcester State Hospital" in three of their main galleries. This exhibition was hung on its artistic merit and not featured on a psychotic basis. Over four thousand people from the community attended this exhibition. A paper has been written on this project and is to be published in one of the psychiatric journals.

Expense of the Department

The total expense of the department for the year amounted to $404.49. This includes purchase of radio equipment, labor by the consulting engineer, art material, victrola records, and some outside entertainment. It is interesting to note that the entire expenditure of the radio and its upkeep for the year amounted to only $197.17 or 54 cents a day. This figure included the purchase of a few dynamic speakers to replace the old magnetics.

Recommendations

The plan to replace all 100 RCA magnetic speakers with modern dynamic types should continue. A system of lights could be installed in the control room and in the telephone office enabling the operator to push a button for a certain doctor rather than call the radio room by phone. Thought should be given to the eventual purchase of a complete new control board as much of the present equipment is now obsolete. Whenever a part time worker or voluntary worker could be procured for the radio department this should be done. Because of the routine reports, clerical work, maintenence and care of the radio equipment, the radio director has little or no time to devote to patients that might benefit by private instruction or musical aide. In past years we have been fortunate to have voluntary workers from the community as well as "loans" from the Occupational Therapy Department. This year there was no such aide.

Medical and Surgical Activities

This hospital has a separate medical and surgical unit of 287 beds for the study and treatment of physical disease. The service is composed of ten wards: five male and five female; each ward reserved, as much as is possible for a particular group of diseases and is administered by three physicians.

Other medical activities under this division of the report are the various diagnostic and therapeutic clinics for patients and employees, the X-Ray and Physical Therapy departments, the Dental department and the hospital laboratory and Dietician.

Movement of Population

There were 1,474 cases admitted to the service during the past year. The greatest number of cases were admitted during the months of January, February, March and April. During the year 563 males and 690 females were discharged from the service. Discharges from the service detailed as to physical condition are shown below:

Table I

	Male	*Female*
Recovered and improved	508	616
Not improved	38	32
Not treated	17	20
Admitted for study	49	51

Deaths:

There were 222 deaths during the year; the average age at death was 66. The principal cause of death in 75 was generalized arteriosclerosis; in 17, chronic nephritis; in 17, death was associated with some type of fracture (this includes cases dying within a year of a fracture). In 16, broncho-pneumonia was a principal cause of death occurring mostly in elderly arteriosclerotic individuals; in 8 the principal cause of death was listed as lobar pneumonia; dementia paralytica accounted for 10 deaths; 5 died as a result of coronary occlusion and 3 as a result of coronary sclerosis; 11 patients died as a result of pulmonary tuberculosis; death associated with some type of cancer occurred in 10 cases. The remaining deaths were due to various causes in many of which generalized arteriosclerosis was a contributing factor.

There were 138 (62.2%) autopsied cases during the year; 22 of this group were medico legal cases.

This is an increase of 10% in autopsy rate.

Table II

Consultations:

The following table list the number of examinations made by consultants:

Eye	77	Neuro Surgical	10
Ear, Nose, Throat	24	Genito Urinary	7
Gynecology and Obstetrics	30	Dental	2
General Surgery	48	Pediatrics	2
Medicine	7	Electrocardiograms	4
Pondville (cancer)	16	Dermatology	1
Orthopedics	15	X-ray	50

Obstetrics:

During the fiscal year there were 9 deliveries; in the group there was one stillbirth. There were no deaths of live births, and there was no maternal mortality.

Major Surgical, Operations Table III

Deliveries	9
Hernia Repair uncomplicated and strangulated	6
Hysterectomies and other female Surgery	6
Blind Hip Nailing	6
Hemorrhoidectomies	5
Exploratory Laporatomy	4
Appendectomies	4
Saphenous Vein Ligations	3
Mastoidectomies	3
Cholecystectomies	3
Cystoscopies and Pyelograms	3
Mastectomies Simple and Radical	2
Perineal repair	2
Suprapublic cystotomy	2

One each of the following: Colostomy and resection of volvulos, rib resection, removal of cancer of nose, enucleation of eye, resection and lateral anastomosis of jejunum, dilatation and curetage, resection of complete prolapse of rectum, sub muccous resection, ventriculogram, repair of evisceration, removal of hip nail, Leahy's colostomy first stage, removal of foreign bodies from abdomen, omentopexy, tonsillectomy, amputation, craniotomy.

Total 77

Minor Surgery Table IV

Lumbar punctures with pressure readings	177
Suture of lacerations	144
Incision and drainage	143
Injection of Varicose Veins	57
Reduction of fractures and dislocations	58
Immobilization in plaster casts	42
Aspirations—joints, hydrocele, abdomen, chest, etc.	34
Artificial pneumothorax	21
Dental extractions under anesthesia	15
Excision of Tissue	11
Blood Transfusions	11
Examinations—sigmoidoscopic, bronchoscopies, etc.	12
Encephalograms	10
Biopsies	5
Implantation of Testosterone propionate	5
Removal of foreign bodies	3
Fulguration of tissue	3
Myringotomy	2

One each of the following: Incision and curetage, removal of nasal polyps, dilitation of urethra, insertion of radium.

Total	757

Table V

Tabulation of the medical and surgical attention given to employees is listed below:

Examined and treated at clinic	1,175	Farmers and food handlers examinations	183
Required hospitalization	163	New employee physicals	367
Required operations	35		
Total number of days on sick ward	929		

Table VI

This table details the procedure carried out at our Out Patient Clinic for ambulatory patients. This is held in a part of the Operating Room Suite.

Abrasions and lacerations	1,918	Burns	797
Furuncles and carbuncles	1,415	Unnas Boots	91
Infections	6,698	Miscellaneous	3,909
Ulcerations	2,340		

There has been no permanent clinic nurse since August because of a shortage of nurses. As a consequence the number of patients treated since that time in the clinic had fallen to one third of any previous month.

To facilitate diagnosis, special clinics were held by physician of the Medical Department to examine eye, ear, nose and for pelvis examinations on female patients. To effect economy of time and effort diagnostic procedures are handled in clinic style. In all 19,110 examinations and treatments were given in special clinics listed below:

Table VIII

Eye examinations	783
Ear, nose and throat examinations	757
Gynecologic examinations	1,127
Luetic treatments	8,996
Spinal punctures	428
Wassermann tests	1,405
Hernia, hemorrhoid and varicose vein examinations	1,506
Small-Pox vaccinations	403
Typhoid Vaccines	3,415
Others	113
Total	18,933

Physiotherapy Department:

Miss Dorothy Miller, graduate of Boston University Sargeant School, was appointed physio-therapist at the end of December, and has efficiently operated this department with one assistant during the remainder of the year.

Treatments carried out are given below:

Baking	1,994	Ultra Violet (air cooled)	1,162
Diathermy (medical)	488	Ultra Violet (water cooled)	84
Diathermy (surgical)	22	Fever therapy	230
Massage	660	Total treatments and tests	5,453
Muscle re-education	813	Total number of patients treated	639

X-Ray Department:

Mr. Vincent Nutt was appointed in March to the position of Technician and increased the efficiency of operation markedly over last year.

Table IX

Patients examined	2,380	Photograph of patient	25
X-Ray Films used	3,670	Films	79
Finger Prints	35	Lantern Slides	5
Foot prints	6		

Dental Department:

Simon D. Harootian, D.M.D. continues to direct the activities of this department. A full time dental hygienist and two dental internes during the summer administer to dental needs of all patients. All new patients have dental examinations, and all patients are examined yearly. An effort is made to keep mouths in good condition. Dental supplies and dental hygiene on wards is under supervision of the dentist.

Table X

Cleanings	2,211	Plates Numbered	326
Examinations	5,398	Alveoectomy	146
Extractions	1,263	Sutures	
Fillings	1,142	Case Records Taken	660
Microscopic Exam.	1	Case Records Dictated	833
Plates	36	Sutures removed	1
Repairs	9	Surgical extractions	12
Treatments — miscellaneous	3,343	Impactions	2
X-Ray and Diag.	886	Ligatures removed	11
General Anesthesia	23	Fractures Immobilized	5

Total examinations and treatments	16,164
Total number of patients treated	5,398

The Grand Total report for 1938-39 exceeds the figures for 1939-40 due to the presence of a dental interne from January, 1939 to June, 1939 aside from the usual two dental internes for the summer months.

If a comparison of this year's report (1939-40) is made with 1937-38 figures, it will be noted that an actual gain has been made this year. (App. 900 dental operations).

Dietary Department:

There have been two definite changes in the Dietary service in the past year.

The majority of the special trays were cancelled, retaining only such special diets as were deemed absolutely necessary by the doctor, such trays as diabetics, nephritics, peptic ulcer cases, and sick employees. This necessitates the preparation of from twenty to twenty-five special diets daily. Additional fruit, fruit juices, vegetables, egg nogs, and chocolate milk have been supplied to supplement the house diets. The diet personnel now go to the Medical wards at every meal and serve and supervise tray service and dish washing.

The dietitian assumes the responsibility for correct tray service, dish washing and cleanliness of ward kitchens. She also has charge of replacement of dishes and silverware when needed on medical wards. The dietitian consults with the chef daily on the type of food and the quantity to be served to the medical wards.

The dietary department also serves a full noon meal to all insulin patients on treatment days. There are from eight to fourteen patients.

There are approximately 270 people receiving meals under the dietary department.

Laboratory Report

The total number of laboratory procedures for the past year has shown a drop of approxmately 6,000 from that of the previous year, the total being 53,379 as against 59,409. The greater part of this drop is accounted for by a decrease in the number of

routine blood chemistry determinations made. This change appears to be due to the fact that each service is responsible for the obtaining of blood samples on their own patients. Coincident with this change in policy the number of requests for blood chemical examination diminished. As an example only 1,491 N. P. N. determinations were made this year as opposed to 2,248 last year.

The total number of autopsies performed during the year was 139, an increase of 37 over last year. The number of deaths was 222 so that the percentage of autopsies was 62.2 or 10% higher than last year.

During the year the laboratory has continued the course in medical technology and at the present time there is a greater demand for our graduates than we are able to supply. All our previous graduates have been placed and we have been able to call back to the laboratory two of our students for permanent positions. We have likewise continued to train physicians in pathology but have experienced considerable difficulty in finding suitable candidates to fill our two positions.

The clinico-pathological conferences have been held regularly on the last Thursday of the month and have been well received and attended. Every effort is made to choose the type of case presented so that some new lesson can be learned at each session.

It is hoped that during the coming year the plans formulated two years ago for the refinishing of the laboratory can be completed. The upper laboratories are greatly in need of painting and the floors need covering.

Laboratory Examinations
1939–1940

Abstract of some of the tests from the total of 53.379.

Laboratory Examinations

1939–1940	
Pathology	
Autopsies:	139
Tissue Sections	1,890
Feces examinations ova, parasitis, etc.	185
Bacteriology:	
Animal Inoculations	2,053
Ascitic Fluid	–
Sp. Gr.	4
Cells	19
Bacterial Cultures	779
Blood Cultures	35
Feces Bile	15
Blood	102
Ova	35
Parasites	33
T. B.	–
Fat	–
Milk Count	306
Occult Blood	633
Pathological Bacteria	63
Bacteria Smears	1,003
Sputum	198
Neufeld Typing	2,644
Vaccines	6
Blood	–
Bleeding time	33
Clotting time	33
Differential counts	3,615
Erythrocytes counts	2,465
Leucocytes counts	3,724
Platelet counts	22
Reticulocyte counts	43
Hemoglobin	3,178
Malaria	3
Schilling index	180
Fragility	2
Hematocrit	190
Icteric Index	34
Sediment	15
Typing	82
Vandenberg	27
Color Index	2,294
Agglutination	1
Sp. Bacteria	–
Undulant Fever	4
Widal Tests	7
Feces Typhoid	192
Dysentery	90
Skin Undulant Fever	1
Skin Test Trichinosis	2
Chemistry	
Blood:	
Albumin	538
Bromide	86
Calcium	107
Chloride	11
Cholesterole	502
Cholesterole Free	488
Cholineesterase	571
Creatinine	16
Globulin	532
Glutathione	330
Lactic Acid	32
Lipoids	488
N. P. N.	1,491
Phospho. Lipids	488
Phosphorus	431
Potassium	–
Magnesiums	406
P. H.	6

Sugar	2,701	*Spinal Fluid*	–
Table Protein	554	Bromide	9
Sp. Gravity	398	Cell count	1,103
Urea	9	Chloride	1
Uric Acid	152	Gold Curve	636
Phosphotase	419	Protein	636
Vitamin C.	26	Sugar	636
Glucose Tolerance	56	*Special tests:*	
Sulphanilamide	31	Tissue Respiration	222
Sulphapyradine	159	Hormone Extract	1,049
Thiocyanate	118	Adrenaline Determinations	170
Gastric Analyses	75	Haldane Gas Determinations	24
Blood	75	Insulin Tolerance	82
Bile	75	Spinal Fluid Differential	103
Bromide	10	Spinal Fluid Thiocyanate	85
		Urine Chlorides	2
		Spinal Fluid Bilirubin	1

Research Activities

During the year a number of projects have been in progress carried on by a clinical staff, some of them in cooperation with the research department. These included subjects of a clinical nature, specific methods of treatment, investigations into the etiologies of various types of disturbances, the care and management of patients both in and outside of the hospital. The clinical staff emphasized the following: (1) a study of the course and prognosis of the psychoneuroses, a report of which was presented at the American Psychiatric Association; (2) studies on the problem of old age, reports of which were presented at a symposium sponsored by the Massachusetts Society for Research in Psychiatry; (3) a Study of the Socio-psychiatric factors in the development of Involutional Psychoses to be presented at the next meeting of the American Psychiatric Association; (4) An investigation into the neurophysiological and psychiatric effects of drugs to be presented at the American Neurological Association meeting; (5) the results of shock therapy and (6) a survey of hyperthermic methods of treatment in syphilitic diseases of central nervous system. Other projects which are carried on in collaboration with the research department are mentioned below in the report by that department.

Research Department

The Research Department has, as in previous years been subsidized by the Division of Mental Health, the Worcester State Hospital, the Memorial Foundation for Neuro-Endocrine Research, and the Rockefeller Foundation. In addition, a grant from the Armour Company to Dr. R. G. Hoskins has been used for a special stipend and materials for study of the biochemistry of sex hormones.

As in the preceding year, a great part of the activities of the Research Service was devoted to the study of the effects of sex hormones in schizophrenia. This work is being carried out under the direct supervision of Dr. R. G. Hoskins, and all departments are contributing to the undertaking. The organization of this project has been described in some detail in the preceding year's report.

Dr. Harry Freeman, in collaboration with Dr. Saul Rosenzweig, undertook an investiation to determine whether any psychologic changes were apparent after the administration of a combination of male sex hormone (testosterone) and anterior pituitary gonadotropic factor (Maturity Factor—Armour). Ten schizophrenic patients were given anterior pituitary material intramuscularly daily for ten days. Ten other schizophrenic patients were given similar amounts of placebos identical in appearance with the endocrine material. The selection of patients for the blank or potent materials was made by Dr. Hoskins and remained unknown to anyone else. The patients were given psychiatric examinations and photoscope tests (pictures of varying degrees of sexual interest) before and after the medication and three weeks later. In 90% of the patients the medication produced considerable mental changes, mainly of the nature of the greater tension with greater sexual interest, or of reactivation of old conflicts.

Dr. R. G. Hoskins and Dr. Saul Rosenzweig followed one patient very closely for several months to observe the effects of various sex hormones on behavior. It appeared that significantly observable effects were produced by some of the medications, but the results were not always beneficial nor were they more than transitory. From the stand-

point of psychodynamics, the findings are of interest since it was possible to show through the intensification of certain drives what were the underlying patterns in the behavior of the patient.

In another study Dr. Hoskins and Dr. Rosenzweig made an attempt to study the possible effects of sex hormones in a case of homosexuality of long standing. The patient in question was notorious for his feminine behavior and it was therefore thought useful as a control project to see what changes, if any, could be produced in him by medication. Various sex hormones were administered at the prescription of Dr. Hoskins and interviews were made by Dr. Rosenzweig. The results of the project were negative and it seemed reasonable to conclude that this could be attributed to the long-standing character of the homosexual behavior, which represented a firm crystallization of the personality which was no longer amenable to modification by hormone administration.

Dr. Harry Freeman treated a normal 45-year-old male who complained of impotence with testosterone and anterior pituitary material. Marked improvement was noted in two weeks which persisted throughout the period of medication when anterior pituitary and testosterone were given together throughout the period of treatment. The study is interesting in that it seems to indicate that the combination of medicaments was more effective than either one alone. The combination seems to be worth a trial in schizophrenia, a condition in which depressed gonadal activity has been claimed for a long time as a possible etiological factor.

Dr. Joseph Looney has continued the investigations on methods for the identification and estimation of the androgens excreted in the urine of schizophrenic patients. The pooled extracts from the urine of patients receiving testosterone were fractionated and showed the presence of diocholane 3 x-ol 17 one, and etioallocholane 3 x -17 diol. A similar fractionation of the extracted steroids from the urine of normal subjects after testosterone medication failed to yield these compounds, though Callow has shown the presence of the first in the urine of a man receiving 100 mgm. daily of testosterone. Dr. Looney also continued the investigation of the use of the polarograph or dropping mercury electrode for the determination of sex hormones. The manually operated instrument which he has used has been improved by the addition of an oscilloscope. An amplifier was built to enable him to use this instrument in connection with the polarograph. By its use a visual standing sine wave is impressed on the voltage curve of the dropping mercury electrode. A distortion of this sine wave is obtained at the points of inflection as the voltage through the dropping mercury cell is changed and this gives a rapid means of identifying the compounds present in the cell. With this improvement in technique, it is hoped that more rapid progress can be made in the identification of the steroid compounds isolated from the urine.

Dr. Alan Mather has been working with new methods for the isolation and determination of sex hormones. He has been making a study of a new reagent, potassium guaiacolsulphonate, for the estimation of androgens. By the use of our spectro-photelometer, he has prepared absorption curves of the products produced by adding this reagent to sex hormones under various experimental conditions. The work so far has been promising. He has also been studying the question of the solubility of the various sex hormones when partitioned between two immiscible solvents. The methods seem to be entirely practicable for separating the various hormones.

A co-operative project relating to insulin and to metrazol treatments has been completed. Dr. Conrad Wall compared a group of patients who did well after insulin treatment with a group who reacted poorly to this medication. He was able to establish certain clinical criteria which may have considerable prognostic value for insulin treatment. A similar study on metrazol-treated cases is nearing completion by Dr. Benjamin Simon.

Data relating to the functions of the vegetative nervous system such as blood pressure, pulse rate, circulation time, reaction to adrenalin before and after insulin and metrazol treatments are being analyzed by Dr. Harry Freeman. The data on the biochemical variables are in process of analysis by Dr. Joseph Looney and other members of the Biochemical Department.

Previously Dr. Andras Angyal and Dr. Nathan Blackman studied the vestibular reactivity in schizophrenic patients and normal persons. They found a strong reduction of this function in the schizophrenic group. Following this lead several studies of vestibular function are being carried out on the Research Service. Dr. Angyal and Dr. Blackman studied the nystagmic reaction of patients and normal persons under the

influence of increased CO_2 tension, hyperventilation, and ingestion of alcohol. The reaction of the patients was found to be not only quantitatively different from that of the normal subjects but it was, paradoxically, in an opposite direction. (a) Under the influence of alcohol the normal subjects showed an increase, the patients a decrease, in the number and frequency of nystagmus. (b) Increased CO_2 tension depressed the nystagmic reaction in normals; in 40% of the patients it caused an increased reaction, 45% showed no change, and only 15% behaved somewhat similarly to the normals. (c) Hyperpnea caused an increase in the normals and a decrease in the patients.

In order to clarify the causation of abnormal vestibular findings in schizophrenia, it seemed desirable to examine separately the various sections of the vestibular nervous connections. Dr. Max Sherman compared the optokinetic nystagmus of schizophrenic and normal individuals. He found no significant difference between the patients and normal subjects and hence he concludes that the pathway from the conjugate center of the ocular movement in the mid-brain to the extra-ocular muscles is not primarily related to the diminished nystagmus observed following vestibular function. At present Dr. Andras Angyal and Dr. Max Sherman are engaged in the investigation of the general postural reactions to vestibular stimulation. The indicators used for the measurement of changes in the skeletal muscle tonus are past-pointing and deviation of gait.

Dr. Nathan Blackman is engaged in studying the problem of whether or not the abnormalities of vestibular function found in schizophrenia are correlated with the duration of illness. For this purpose a group of schizophrenic patients with recent onset of illness is being compared with another group of long duration of illness. Dr. Blackman is studying the nystagmic reaction of caloric stimulation in persons affected with psychoses other than schizophrenia. This study should clarify whether the abnormal findings in schizophrenia are specific to this disease or whether they are common to psychoses in general.

Drs. Harry Freeman and Eliot Rodnick have been measuring the steadiness of schizophrenic and normal persons before and after vestibular stimulation by rotation. The amount of swaying is measured by a suitable arrangement and is recorded on a drum of the kymograph. The preliminary analysis of their findings revealed that as a result of rotation the patients increased in unsteadiness 54% and the normal subjects 105%. Thus these results are a further confirmation of reduced vestibular reactivity in schizophrenic.

Besides the afore-mentioned collective studies a number of individual investigations have also been carried out by the various members of the Research Staff.

Dr. Otto Kant has examined a group of schizophrenic patients who have been discharged from the Worcester State Hospital as recovered and have been out of the hospital for a period of at least 5 years. After a personal examination he found 39 completely recovered cases (6.95%) of the total admissions during the 3-year period that he was studying. Dr. Kant studied this group of patients in relation to a comparable group of deteriorated patients. The outstanding characteristics in the recovered group were acute onset, apparent psychogenic precipitation, presence of clouding of consciousness, some manic-depressive admixtures, extraversion and pyknic physique. The deteriorated group showed opposite tendencies. Significant differences were found also in the hereditary background of these patients. The manic-depressive psychosis was 5 times as frequent in the hereditary background of recovered patients as in that of the deteriorated patients. Conversely, incidence of schizophrenia was 5 times as frequent in the hereditary background of the deteriorated group as in that of the recovered group. Dr. Kant studied also a comparable group of highly-improved patients and he found that they are midway between the recovered and deteriorated group with respect to the above-mentioned characteristics.

In several of our schizophrenic patients a fairly consistent high eosinophilia count has been observed in the past. Dr. Andras Angyal has selected 11 schizophrenic patients who have shown in the past a high eosinophile count. Weekly determinations of blood morphology were secured on these patients. Examinations of their stools failed to reveal parasites in any of these patients. At present Dr. Angyal is testing the hypothesis that a poisoning with histamine or similar toxic derivaties may be the cause of the eosinophilia. A Winthrop preparation, Torantil, for which a neutralizing effect of histamine and histamine-like amino derivatives is claimed, is being administered to the patients. The results of the experiment are not as yet conclusive.

Dr. William Holt is studying the problem of whether the sub-clinical pathology of the central nervous system can be revealed under a physiological stress. He is carrying out careful neurological examinations of patients kept under low oxygen tension (9% oxygen).

Dr. Nathan Blackman and Dr. Walter Barton have made a survey of intra-mural publications of mental institutions in the United States. The data from this survey will serve to formulate plans for the more effective use of hospital publications in stimulating socially acceptable forms of behavior in mental patients.

In a previous study with a glycerin extract of adrenal cortex (Glycortal—Schiefflin), it was found that the response in blood pressure to the oral administration of this material was greater in patients than in normal subjects. In view of this indication of adrenal dysfunction Dr. Harry Freeman undertook a study on one patient with synthetic adrenal cortical hormone. The patient was given desozycorticosterone acetate (Percorten—Ciba) intramuscularly every other day for a month, then daily for another month. The patient showed no appreciable change mentally except for marked decrease of tension and agitation. Physiologically, he showed an increased reaction to the administration of adrenalin, a lessened tolerance to glucose, and a greater stabilization of the blood sugar level in the glucose-insulin tolerance test. This may indicate greater sympathetic reactivity. Other physiological functions such as blood pressure, circulation time, B. M. R., and blood chemistry were unchanged.

Dr. Morton A. Rubin studied the electrical activity of the brain in a group of aged schizophrenic patients. The electroencephalograms were not different from those of the younger schizophrenic patients or normal control subjects in respect to occipital alpha frequency, per cent time alpha, or delta index (amount of slow potential changes). There are, however, three outstanding features of the senile schizophrenic's EEG when compared to that of a younger patient or normal control subject: (a) a tendency for an equal distribution of per cent time alpha over the entire head; (b) a tendency for alpha frequency to become progressively lower passing rostrally from the back of the head; (c) in the majority of the senile group, fast (20–30 per sec.) waves are numerous, especially in the frontal regions. The only interpretation that can be made of these data at present is that in this group of senile schizophrenics there is less than normal relative independence of the various architectonic regions of the cerebral cortex, with the net result that they have become more or less equal in their production of electrical energy.

Dr. Morton Rubin studied the encephalographic tracings of schizophrenic and normal persons under the influence of hyperventiliation. In the majority of the cases in the normal control group, large slow waves appear in the EEG as a result of overventilation. Of the group of schizophrenic patients none has shown slow waves. Most of them had an increased per cent time alpha and a few no change at all.

Dr. Morton Rubin, Dr. William Malamud, Dr. Justin Hope, and Dr. Elizabeth Schneidhuber are studying the psychologic changes and the change in the brain activity as measured by the EEG in schizophrenic patients under the influence of sodium amytal, benzedrine, and cocaine. The data as yet available do not allow any definite conclusions to be stated.

Dr. Joseph Looney has completed studies on the albumin-globulin ratios of schizophrenic patients and normal control subjects. The results bear out our earlier impression that there is a fall in albumin and a decrease in the albumin-globulin ratio in the patient group.

Several studies which have been carried out on the Research Service in the past strongly indicate that the oxidative processes in schizophrenia are defective. Mr. Elijah Romanoff has undertaken to investigate this problem with the Warburg technique. It is hoped that this technique will allow the detection of the lack of necessary metabolites or of obnoxious material which interferes with normal metabolism. This technique will further allow the study of hormonal influences on metabolism. Exploratory work by the use of the standard poison technique with iodo acetate indicates that the uterine muscle will serve best for the dual purpose—detection of poisons and study of the influence of hormones. It has been found that the enzyme system involved in the metabolism of the uterine musculature differs from that of the skeletal muscles in that it is more sensitive to poisons and thus may be a better indicator of toxic material in the serum.

Dr. Bela Lengyel has made a survey of the recovery, discharge, and mortality rates for schizophrenic patients admitted to the Worcester State Hospital during the period January 1, 1910 through December 31, 1936. The analysis of these data has required statistical treatment and was furnished by the personnel of our Statistical Department.

PSYCHOLOGY DEPARTMENT

During the current year a statistical analysis of the work done includes the following:

Psychometric and Experimental Studies

Hospital	*Number of Subjects*	*Number of Procedures*
House Patients	451	1,025
Schizophrenic Research Patients	314	917
Out-Patient		
School Clinic	359	378
Adult Delinquents	14	36
Non-Patients (including Employees)	298	359
	1,436	2,715

The above figures conceal psychometric and experimental investigations on a great variety of subjects—mentally disordered, borderline and normal, besides school clinic examinations and psychometric studies of nurses, attendants, occupational therapists and other personnel. Experimental research investigations on various types of patients make up the greater portion of the balance.

I. *Research Completed During Year.*

A. *Electro-physical treatment of schizophrenic patients.* — This project represented an attempt to test the therapeutic and psychodynamic significance of a combination of mild electric shock and rapid rotation on selected cases of schizophrenia. Approximately 20 individuals served as subjects, but only about half of these were treated for any considerable length of time because in the other cases there were contra-indications.

(a) It may be tentatively concluded that the experiences to which the patients were subjected had beneficial effects as related to remission of symptoms in a number of cases. Successful results were achieved in such individuals as would probably have benefited from metrazol or insulin treatment, i.e., early and acute cases.

(b) From the standpoint of psychodynamic significance—one of the chief aims of the study—it was possible to make observations which tend to bear out the view that the psychological effect of the treatment is of paramount importance.

B. *The effect of metrazol shock upon habit systems.* — This study was carried out on a group of 21 schizophrenics undergoing metrazol therapy; another group of 21 other schizophrenics not undergoing pharmacological therapy serving as controls. Two conflicting habits patterns were established. On the critical trials following the metrazol shock, the direction in which the subject moved, whether toward Habit I or Habit II was noted. The results showed that a single metrazol shock had a significantly greater weakening effect upon newer acquisitions than upon older learned material. This phenomenon was obtained even when the difference in age of the two habits was relatively slight.

C. *Adaptation to sound in the schizophrenic as measured by the Galvanic skin response.* — This investigation, carried out on ten schizophrenic and ten normal subjects, indicated that the schizophrenic responded significantly less to an anticipatory signal for a loud sound than did normals, even though the reaction to the noise itself was of essentially the same magnitude. The results indicated that the ability of the schizophrenic to mobilize an anticipatory set was at fault, rather than the physiological capacity to react.

D. *Insulin-Metrazol Studies.* — Completion of the study on the group of patients used in the insulin-metrazol series.

Test battery—The major items of the battery used in the investigation were: Stanford-Binet, K-R Association, Aspiration, Play Procedure. These items were found the most valuable in the analysis of the previous results for the prognostication of improvement. In separate analyses of two previous groups it was found that scores on these procedures above and below certain critical points prognosticated fairly accurately those who did and those who did not improve. The present study was intended as a further check on the results of the previous investigations and should determine finally the validity of the findings which indicated that early deterioration seemed to be a factor of primary importance with relation to prognosis.

E. *Substitute behavior in interrupted ego tasks.*—A study on a group of patients, schizophrenic and other diagnoses, and normal controls of the method of release of tension created by interrupting a task which presumably has considerable ego value for the subject. The results are in process of analysis.

F. *Leverett Maze Tests.*—A series of Maze tests intended for the study of intellectual and other personality characteristics was published and put into general circulation with instructions, and norms.

II. *Research in Progress.*

A. *Test for types of reaction to frustration.*—This project represents an attempt to construct an instrument which will give a behavioral measure of typical ways which a subject adopts in reacting to situations of frustration. The test includes some seven sub-sections, each of which attempts, like the various sub-tests of the Binet, to tap one or another kind of level or type of frustration behavior. Thus far, the test has been administered to six groups of subjects, including mainly normal individuals but also containing a small sample of psychotic and neurotic patients. Approximately 200 subjects have been tested. The results are promising, particularly because of the very great reliability of the results when groups are compared.

B. *Reactions to experimentally induced frustration.*—In this investigation a moderately strong frustration is induced by blocking the drives of financial gain and maintenance of ego status. After enjoying some success on a simple game of skill, in which the score is controlled surreptitiously by the experimenter, the subject is frustrated by making him obtain low scores. Immediately after the frustration, the reactions to frustration are measured by two techniques: the pursuitmeter and thematic apperception tests. The main purpose of the study is the determination of differences in the patterns of reactions to frustration, on the one hand, between schizophrenic and normal subjects, and on the other hand, between acute and chronic patients. In the former case the objective is the determination of the relationship between the pattern of the reactions to frustration and the psychiatric picture which the schizophrenic presents. The comparison of the latter groups of subjects should shed light on the progressive changes that occur with increase in chronicity of the disorder.

C. *Autonomic and respiratory reactions to changes in intra-pulmonary atmosphere.*—This investigation is an extension of a study published earlier. Acute and chronic schizophrenics are being compared for purposes of studying the phenomenon of deterioration. The inclusion of other psychoses as well is planned. The original apparatus was redesigned and simplified in order to improve its ease of operation and portability, with a view toward standardizing its use as a test instrument of autonomic function under stress. In the earlier investigation it was found that when the inspired air was heated above body temperature and saturated with moisture, a fairly marked autonomic reaction occurred in normal subjects. In schizophrenics, however, the reaction was comparatively slight. The measures used were heart rate, blood pressure and respiratory rate and amplitude. In the present modification, in which both temperature and humidity of the inspired air is automatically controlled, the same autonomic and respiratory measures except for respiratory rate will be employed. Thus far only preliminary results have been obtained.

D. *The effect of hyperventilation upon the galvanic skin response.*—This minor study merely a preliminary control for the experiment which has just been described, in order to determine whether the effect of the respiratory stress might be a result of hyperventilation.

E. *Effects of testosterone on psychological functions.*—This project is continuing with special emphasis being placed on the use of the Thematic Apperception and Rorschach Tests.

F. *Psychological functions in cases of brain damage.*—A continuation of work on the study of patient with organic brain damage by means of a battery of pschological tests. The literature on the psychological effects of brain damage has also been worked up.

G. *K-R Association Test Norms.*—Continuation of the work done on developing a new and more adequate scoring system for the Association Test.

H. *Deterioration Studies.*—Preliminary to a major project on the deterioration process in schizophrenia the literature on deterioration has been collected and to a considerable extent abstracted.

I. *A study of sibling deaths in the pre-psychotic history of schizophrenic patients as a factor in etiology.*—A study, mainly statistical, on this problem.

III. *Analytic Work in Progress.*

A. *Memory studies.*—Data on the mnemonic functioning in the various psychoses (some 900 cases) is still in process of rescoring by a new scoring system based on one developed for control group of normal subjects. The data on the latter (192 cases) are in the process of statistical analysis.

IV. *Research and Analytic Work Planned for 1940–41.*

Besides the continuation and completion of the researches still in progress the following are planned for the coming year:

A. *Deterioration.*—A comprehensive study of the process of deterioration as indicated in the disturbance of psychological function has already been started in a preliminary fashion. Those patients are being used on whom data are available for a period of ten years or so. From these data it is hoped to determine the different varieties of deterioration and make comparisons with non-deterioration cases.

B. *Responsivity in schizophrenics as compared with normal and psychoneurotics.*—In connection both with the development of devices which may be of use in the national emergency and the continuation of projects of interest to us on our schizophrenia research a certain integration of projects already planned and some new projects into a general project will be part of a larger schedule to be participated in by the Research Service as a whole. The plan is to work with groups of schizophrenics, normals and psychoneurotics on the following program:

1. Adaptation to sound as measured by the galvanic skin response (Described above).
2. Reactions to experimentally produced frustration. (Described above).
3. Autonomic and vestibular reactions to rotational stimulation. (Described above).
4. Tautophone. Use of a simplified form of the test which has been found of value in distinguishing between schizophrenic and normal subjects.

Library Report

I. *Medical Library*

The Medical Library is constantly expanding with an average yearly accession of 300 bound volumes of periodicals and 100 medical monographs and textbooks purchased from current funds. Also, we receive donations from the Medical Library Association Exchange and from members of the staff.

To relieve the congested condition in the main library, an additional stock room has been made available for the old and little-used material. The library now has two connecting basement stock rooms which are reached by way of a new stairway leading directly from the reading-room. This is an improvement which has long been advocated and has proved its value in bringing the entire resources of the library within easy reach of the readers.

The activity and usefulness of the medical library are indicated by the following details:

Periodicals: Realizing the importance of medical periodicals in the advancement of research, we try to maintain this section of the library at the highest level possible with the resources available. Issues of 123 periodicals were received in 1940. Of this number, the Hospital subscribed to 104, 2 were paid for by the Memorial Foundation for Neuro-Endocrine Research, 3 were donated by Dr. Hoskins, 3 by Dr. Barton, 1 by Dr. Malamud, 2 by Dr. Looney, 1 by Dr. W. Freeman and 7 came in free from institutions and scientific organizations. Due to the war, our foreign periodicals ceased to arrive after March, 1940 and it is intended to eliminate these from our next year's subscription list.

Circulation: The Medical Library circulated 809 volumes in 1940. Most of the periodicals and the reference books are consulted in the library so the circulation figure is only a partial indication of the use of the library.

Inter-Library Loans: The librarian contacted other medical libraries and during the year borrowed 126 volumes from 5 libraries as listed below:

Boston Medical Library	80
New York Academy of Medicine Library	27
Harvard College Library	13
Clark University Library	4
Library of Congress	2

Our library lent 38 volumes to three libraries as follows:

Worcester Medical Library	36
Norwich State Hospital	1
Rutland Sanitarium	1

Medical Library Association: The library maintained membership in the Medical Library Association. The Association is of the greatest benefit to all medical libraries in supplying them with missing and out-of-print material for the nominal charge of the postage. Forty-eight volumes were received from the Exchange of the Association during the year.

New Books: In addition to the newly bound volumes of periodicals, 139 other new books were added to the shelves in 1940. The library is used extensively by the affiliate nurses and for their benefit a considerable number of textbooks were purchased during the year.

Binding: 185 volumes were bound during the year, mostly current medical periodicals.

Present State: On November 30, 1940, the inventory of the library shelves showed—

Bound volumes of periodicals	4,796
Unbound volumes of periodicals	23
Current books	2,094
Old books (mostly historical)	1,416
Total Volumes	8,529

This is an increase of 615 volumes over the previous year.

Catalogued reprints	7,452
Abstracts	6,104
Bibliography cards	12,227
Lantern slides	64

Services: The librarian continued to circulate bibliographies and abstracts, prepare special bibliographies, and translate foreign medical articles for the use of the staff. The bibliographies, abstracts and translations are filed in the library.

W. P. A. Projects: The two projects approved by the Federal Government, namely compilation of a bibliography of schizophrenia and continuation of the file of collected abstracts on this subject, have been completed during the year. This work has enabled us to assemble a comprehensive and highly valuable special section in the library for the use of the staff working on schizophrenia research under special grants to this hospital.

At present writing, no W. P. A. workers are assigned to library projects.

N. Y. A. Workers: Through the Federal Agency for training of young people, three workers have been assigned to the libraries of this hospital, each giving eight days' service per month. Their help in the routine administration of the libraries has been considerable and without their assistance it would be extremely difficult to cover all the clerical work necessary.

Recommendations: Due to the greatly increased activities of the Library a telephone and some permanent clerical help are urgently needed.

II. *General Library*

A library maintained for the benefit of the patients, plays an important role in a mental hospital. Bibliotherapy is one of the avenues of approach in the rehabilitation of the patients. In the hands of a competent librarian, well-acquainted with books and used to the ways of mental patients, the library may safely be described as affording the patients an environment and social situation very similar to that available in the community.

Unfortunately, the high aims of an aggressive library policy cannot be attained in our library under the present arrangements. The library room itself is pleasant and the furniture attractive; the choice of current magazines and newspapers is adequate for a hospital of this type. Although funds for the purchase of new books are limited, we are able to acquire the most important recent books. Where we are less successful is in the matter of personnel to administer the collection. During the last ten years, we scarcely ever have had a librarian qualified for the task. We have experimented with patients, W. P. A. and N. Y. A. workers, attendants and volunteer help (some years as many as five or six persons being in charge of the desk). The primary cause for the constant change in personnel has been the lack of an appropriation for a qualified employee. All personnel so far supplied have been "loaned" from a project or another department which has first lien on the individual's services. This division of interest and supervision is incompatible with efficient administration.

In the first half of the year, Miss Jeannette Belliveau was in charge of the library, taking care of the desk and making regular trips to the wards—twice a week to the male wards, twice a week to the female wards, and once each week to the Summer Street

Department, Hillside Farm and the Farmhouse in rotation. Through this system, a good selection of books and magazines was made available to the patients who cannot come to the main hospital library. After Miss Belliveau's resignation on July 1, 1940, Mr. William Foxhall took over the duties. Unfortunately in October, his services were required for ward duty. Since that date, three N. Y. A. girls have helped in the Library. This had made it possible for the library to be open certain hours during week-days. With a regular employee in charge, it is our plan to keep the library open in the evening and at weekends so that working patients may have an equal opportunity with others to use the library. Since October, the ward service and the evening reading hours have had to be discontinued.

During the fiscal year we added 119 new books to the shelves. On November 30, 1940 the General Library had:

Books (fiction and non-fiction)	2,182
Serials	212
Bound magazines	95
Bibles and prayer books	36
Reference books	73
Total books	2,598

In addition to our stock, we borrow 100 books every three months from the Worcester Public Library.

Fifty-one popular magazines, 12 technical periodicals and 6 daily newspapers are subscribed to by the Hospital.

Arrangements have been made with the Public Library to lend 100 volumes every three months to the Summer Street Department. In addition to this 100 volumes are sent to Summer Street from our General library every three months and 10 popular magazines and 4 newspapers are subscribed to for this department.

The Library is well patronized by patients and employees. The circulation figures for the year are quoted below:

Fiction	6,257
Non-fiction	1,667
Magazines	2,308
Ward service	5,498
Total circulation:	15,730
Patients' book charge slips	6,195
Employees' book charge slips	2,206
Reading patients	12,601
Reading employees	1,250

A few churches of Worcester and the Free Public Library send us books and magazines regularly. We express our thanks for all such donations.

List of Publications for Worcester State Hospital
December 1, 1939 — November 30, 1940.

1. Angyal, Andras with Nathan Blackman. Vestibular Reactivity in Schizophrenia Arch. Neur. & Psychiat. *44:* 661, September, 1940.
2. Angyal, Andras with Harry Freeman and R. G. Hoskins. Physiologic aspects of schizophrenic withdrawal. Arch. Neur. & Psychiat. *44:* 621, September, 1940.
3. Blackman, Nathan. Experiences with a Literary Club in the group treatment of schizophrenia. Occ. Ther. and Rehab. *19:* 293, October, 1940.
4. Bryan, William A. How to obtain necropsy permits? Mod. Hosp. *54:* 44, April, 1940.
5. Bryan, William A. Mental patients in small towns. Mod. Hosp. *54:* 77, May, 1940.
6. Devereux, George. Maladjustment and social neurosis. Am. Soc. Rev. *4:* 844, December, 1939.
7. Devereux, George. Social Negativism and Criminal Psychopathology. J. Crim. Psychopath. *1:* 322, April, 1940.
8. Freeman, Harry. Heat-regulatory mechanism in normal and in schizophrenic subjects. (Under basal conditions and after the administration of dinitrophenol.). Arch. Neur. & Psychiat. *43:* 456, March, 1940.
9. Freeman, Harry with Eliot H. Rodnick. Autonomic and respiratory responses to changes of intra-pulmonary atmosphere. Psychosom. Med. *2:* 101, April, 1940.

10. Greenhill, M. H. with M. Yorshis. Prognostic criteria in dementia paralytica. Am. J. Psychiat. *97:* 167, July, 1940.
11. Hoskins, R. G. with Rose Small. The influence of diethyl stilboestrol on the spontaneous activity of male rats. Endocrinol. *27:* 452, September, 1940.
12. Kant, Otto. Differential diagnosis of schizophrenia in the light of the concept of personality stratification. Am. J. Psychiat. *97:* 342, September, 1940.
13. Kant, Otto. Types and analyses of the clinical pictures of recovered schizophrenics. Psychiat. Quart. *14:* 676, October, 1940.
14. Lee, Milton with William Freeman. Liver growth in rats treated with anterior pituitary growth hormone. Endocrinol. *26:* 493, March, 1940.
15. Looney, Joseph M. The treatment of pituitary dwarfism with growth hormone. Endocrinol. *26:* 163, January, 1940.
16. Looney, Joseph M. Sex factors of the adrenal gland. Endocrinol. *27:* 511, September, 1940.
17. Looney, Joseph M. The effects of pregnant mare serom on spermatogenesis in man. Endocrinol. *27:* 753, November, 1940.
18. Looney, Joseph M. with Elijah B. Romanoff. The effect of testosterone on the serum lipids of normal subjects. J. Biol. Chem. *136:* 479, November, 1940.
19. Randall, Lowell O. Effects of repeated insulin hypoglycemia on the lipid composition of rabbit tissues. J. Biol. Chem. *133:* 129, March, 1940.
20. Randall, Lowell O. Effects of Testosterone on serum lipids in schizophrenia. J. Biol. Chem. *133:* 137, March, 1940.
21. Randall, Lowell O. The effects of insulin on serum lipids and choline esterase in schizophrenia. J. Lab. & Clin. Med. *25:* 1,025, July, 1940.
22. Rodnick, E. H. with D. Shakow. Set in the schizophrenic as measured by a composite reaction time index. Am. J. Psychiat. *97:* 214, July, 1940.
23. Roheim, Geza. The Garden of Eden I. Psychoanal. Rev. *27:* 1, January, 1940.
24. Roheim, Geza. The Garden of Eden II. Psychoanal. Rev. *27:* 176, April, 1940.
25. Roheim, Geza. Freud and Cultural Anthropology. Psychoanal. Quart. *9:* 246, April, 1940.
26. Roheim, Geza. Society and the Individual. Psychoanal. Quart. *9:* 526, October, 1940.
27. Rotter, Julian B. Studies in the use and validity of the Thematic Apperception Test with mentally disordered patients. I. Method of analysis and clinical problems. Char. & Person. *9:* 18, September, 1940.
28. Rubin, Morton A. with Harry Freeman. Brain Potential Changes in Man During Cyclopropane Anesthesia. J. Neurophysiol. *3:* 33, January, 1940.
29. Rubin, Morton A. Electroencephalography in the Psychoses: Localization of Cerebral Atrophy. Am. J. Psychiat. *96:* 861, January, 1940.
30. Shakow, David with Saul Rosenzweig. The use of the Tautophone ("Verbal Summator") as an auditory apperceptive test for the study of personality. Char. and Person. *8:* 216, March, 1940.
31. Shakow, David. One psychologist as analysand. Jour. Ab. & Soc. Psych. *35:* 198, April, 1940.
32. Snyder, William U. with Louis H. Cohen. Validity of imagery testing in schizophrenia. Char. & Person. *9:* 35, September, 1940.
33. Wall, Conrad. Observations on the behavior of schizophrenic patients undergoing insulin shock therapy. J. Nerv. & Ment. Dis. *91:* 1, January, 1940.
34. Wegrocki, Henry J. Generalizing ability in schizophrenia. (An inquiry into the disorders of problem thinking in schizophrenia.) Arch. of Psychology *35:* 254, July, 1940.
35. Wise, Carroll A. Mental Hygiene and the Clergy. Mental Hygiene Bull. of the Michigan Soc. of Mental Hygiene, December, 1939.
36. Wise, Carroll A. Our Ministry to the Ill. Zion's Herald, October 16, 1940.

Scientific Assemblies Addressed by Staff Members

Andrus Angyal, M.D., with Nathan Blackman, M.D. American Psychiatric Association, Cincinnati, May 20–24, 1940. "Paradoxical Vestibular reactions in Schizophrenia under the influence of alcohol, of hyperpnea and carbon dixoide inhalation."

Boston Society of Psychiatry and Neurology, Boston, Mass., March 21, 1940 with Nathan Blackman, M.D. "Vestibular reactivity in Schizophrenia."

Walter E. Barton, M.D., American Hospital Association, Boston, Mass., September 19, 1940. "Sick Leave."

With Hans Molholm, M.D., American Psychiatric Association, Cincinnati, May 20–24, 1940. "Family Care; a community resource in the rehabilitation of mental patients."

Massachusetts Society for Research in Psychiatry, Taunton, October 11, 1940. Exhibit—Vasocillator Bed in treatment of arteriosclerotic psychoses.

Mary B. Beach, Reg. O. T., American Occupational Therapy Association, Boston, September, 1940. "Evaluation Clinic."

Nathan Blackman, M.D., American Psychiatric Association, Cincinnati, May 24, 1940, "Experiences with a Literary Club in the group treatment of Schizophrenia."

William Freeman, M.D., Massachusetts Society for Research in Psychiatry, Taunton, October 11, 1940. Exhibit—"Pathology in the aged Psychotic." Discussant—"Vitamin C Studies on the Aged."

Otto Kant, M.D., Boston Society of Neurology and Psychiatry, Boston, November 21, 1940. "A comparative study of a group of deteriorated and recovered schizophrenic patients."

Joseph Looney, M.D., The Association for the Study of Internal Secretions, New York, June, 1940. "The effect of the administration of testosterone proprionate on normal and schizophrenic subjects."

William Malamud, M.D., American Psychiatric Association, Cincinnati, May 20–24, 1940. "Prognosis in Psychoneuroses."

American Neurological Association, Rye, N. Y., June 6–8, 1940. Discussant paper by Lindermann and Finesinger.

Massachusetts Society for Research in Psychiatry, Taunton, October 11, 1940. "Current trends and needs in research on problems of the aged."

Worcester District Medical Society, February 14, 1940. "The Treatment of the Neuroses."

Conference on Psychological Methods for Personality Selection. National Research Council, Philadelphia, November 23–24, 1940. "Clinical Psychiatric Examinations."

Eliot H. Rodnick, Ph.D., American Psychological Association, State College, Pennsylvania, September, 1940. "The effect of metrazol convulsions upon habit systems."

Saul Rosenzweig, Ph.D., Eastern Psychological Association, Atlantic City, April, 1940. "Need-persistive and ego defensive types of reaction to frustration."

Worcester District Medical Society, February 14, 1940. "Experimental Neuroses."

J. B. Rotter, Midwestern Psychological Association, Chicago, Ill., May, 1940. "Reactions to experimental induced fustration."

Benjamin Simon, M.D., with S. Harvard Kaufman, Massachusetts Society for Research in Psychiatry, Taunton, October 11, 1940. "Psychiatric Problems of the Aged."

Conrad Wall, M.D., American Psychiatric Association, Cincinnati, May 20–24, 1940. "Some prognostic criteria for the response of schizophrenic patients to insulin treatment."

Educational Activities

The programs in this field have been carried on both in the hospital and outside of it. These have been concerned primarily with the training of members of the staff, especially of the residents. In addition to the instruction given at rounds and conferences, lectures on various phases of this field were given by the clinical director, members of the staff, psychologists, etc. As in previous years, fourth-year medical students from Tufts Medical School and from Boston University Medical School served one month internships at the hospital and special programs of instruction were carried on by the staff for them. Evaluation clinics for occupational therapy students and social workers were continued throughout the year with case discussions and the formulation of plans for treatment.

There were 59 students in training in the hospital most of the time last year divided into groups listed below:

Medical Student Internes (for 1 month)	5	Laboratory Technicians	2
Graduate Medical Residents	6	Child Guidance Clinic	
Graduate Pathology Residents	2	Psychology Student	1
Dental Internes (for 3 months)	2	Social Service Students	3
Psychiatric Social Service Students		Medical Residents and Special Students	4
Smith College	3	Affiliate Student Nurses (3 months)	13
Simmons College	1	Postgraduate Nurses	3
Boston University	1		—
Psychology Students	5		59
Occupational Therapy Students	8		

Teaching appointments held by the staff members were as follows:

Dr. R. G. Hoskins, Professor of Endocrinology, Harvard Medical School.

Dr. William Malamud, Clinical Professor of Psychiatry at Tufts and Boston University Medical Schools.

Dr. Walter E. Barton, Instructor in Medicine and Clinical Psychiatry, Smith College School for Social Work.

Lectures Clark University.

Dr. William Freeman, Instructor in Pathology at Boston University Medical School and Worcester Hahnemann Hospital.

Dr. Saul Rosenzweig, Instructor in Psychology, Clark University.

Mr. Carroll A. Wise, Instructor in Psychology, Boston University School of Religion and Social Work.

Drs. Malamud, Looney and Mr. Shakow served as instructors in course on Neurology and Psychiatry at the Metropolitan State Hospital.

Nursing Education Department

In 1940 the Nursing Education department made a consistant effort to increase the amount and quality of ward teaching and experience of the student nurses in the clinical situation. This necessitated greater expenditure of time by the instructors and head nurses. Individual instruction and instruction of small groups seems to have shown that there was more enthusiasm and initiative and better learning on the part of the students. In order to help students to anticipate and prepare for nursing situations, rotation schedules were made for the students' entire period of service in the hospital. An attempt was made to create situations which would help the students integrate all their activities into a skillful ability to adjust better to their future personal, social and professional life.

Post-Graduate Instruction:—In May two students completed the Post-graduate Course and in October three students were enrolled.

It was necessary to grade the type of experience planned for each student because of background, desires and expectations from the course. Changes were made in the Course of Study to pattern it to those in institutions of higher learning. It is hoped that sometime soon the revised Course of Study will be accepted and credited by a college or university near Worcester as part of a degree program.

Special attention was given to sequence and chronological order in which courses were presented to ensure a logical and more easily assimilated development. Major changes were as follows:

Psychotherapy increased	9 hours
Psychiatric Nursing increased	13 hours

Throughout the Psychiatric Nursing Course emphasis was placed on planning and executing the best possible type of nursing care and on the principles and methods of ward supervision, management and teaching.

It was planned for the first time to give beauty parlor experience and out-patient department experience. Whenever possible conventions and meetings were attended in an attempt to broaden the students' knowledge and interest in their own and other fields.

The Nursing Education Department was expecially fortunate in having Mrs. Malamud plan and teach the Sociology Course. It is different in that applications are made to psychiatric hospital and nursing situations and is, therefore, more functional.

On request of the students and because it seemed to be in the best interest both of the hospital and the health of the nurses a forty-four hour week including classes was established in December.

Affiliate Nursing Instruction Program:—Affiliate nurses came from the following hospitals in 1940:

Burbank Hospital, Fitchburg	12 students
Worcester City Hospital	12 students
Worcester Hahnemann Hospital	8 students
Worcester Memorial Hospital	23 students
Worcester St. Vincent's Hospital	21 students
Total	76 students

About six students commuted from their own hospitals during the year except in the winter. Some of the affiliates have joined our staff upon graduation; others plan to do so; while still others plan to return as post-graduate students.

Special classes in clay modeling were conducted for the untidy patients and there was found to be a noticeable decrease in destruction and soiling in this group of patients when they were occupied in this class.

In July a revised course of study was instituted upon the suggestion of the State Department. The major changes were the introduction of three subjects:

Psychology, including psychometrics	20 hours
Sociology	4 hours
Neuroanatomy, including autopsies	10 hours

Since the students had previously attended at least four hours of autopsy the increase by the addition of these subjects is thirty hours. Most of the students have had neither Psychology nor Sociology before they come here so these subjects are necessary in order to give a better basis for psychiatry and psychiatric nursing. However the Curriculum Guide for Schools of Nursing[1] recommends that these two subjects be taught in the first year of the nurse's education. This would mean that these subject should be prerequisites to their affiliation. If this were so, there would be more time for the student to get experience in the clinical situation than is possible under the present plan.

Staff Education Program:—A Staff Education Program was planned and begun with the cooperation of the entire nursing staff and opportunity was provided for active participation by every member. Procedures, new treatments and medications, and the principles of ward administration and teaching were to be discussed. The first step of this program is the evaluation and reconstruction of nursing procedure. It is hoped that this program will stimulate the nursing staff to be progressive while they are in our organization and to prompt them to seek further study so that they will give the best scientific nursing care.

Community Service

In an attempt to reach out into the community for the purpose of treating the milder forms of personality maladjustment and also to prevent the occurrence of more severe deviations and to keep in contact with the psychosomatic problems as they are met with in the field of general medicine an outpatient clinic at the Worcester City Hospital was carried on with the help of a social worker and a psychologist. Most of the patients seen there were treated at that clinic although some who presented more severe problems were referred for admission to the State Hospital. Statistics concerning this service are still not available.

The Worcester Child Guidance Clinic

Emphasis at the Worcester Child Guidance Clinic during the year has been on treating cases rather than mere diagnostic service, hence the number of interviews per case has been increased.

The demand for this type of service is also increasing, and because these cases take a longer time and more frequent interviews, the clinic has had to establish a waiting list. At the end of the fiscal year, this list stood at twenty-one children waiting for treatment. This number has since been materially reduced.

Keeping children and parents waiting for treatment has a somewhat detrimental effect on therapy. The continuity of our contacts is interrupted for one or two months and this serves in the long run to make treatment even longer. Sometimes it seems that the clients are discouraged and do not return at all when we finally re-establish contact with them.

The training program for psychiatrists, social workers, and psychologists has continued as before. The clinic has increased its communication with the community. Two pamphlets were issued during the year, describing the work of the clinic, and sent to a mailing list of fifteen hundred community people. An "Open House" was held during May for two nights and many attended to learn first-hand of the clinic's work. Ninety talks were given to various organizations by members of the clinic staff.

With the pressure of demand for work on cases, it has been difficult to bring our follow-up study near to completion. However, this is nearing the final phase of its work, and a report will be made on three hundred treatment cases during a period of seven years. A real difficulty has been sensed in the keeping of notes and statistical records. There is need for a system that will coordinate records, statistics, follow-ups, community work, research time, and time spent in classes and seminars. The clinic has been working out

[1] National League of Nursing Education, New York, 1937.

forms which should make all of this relatively simpler than it has been heretofore. The allocation of the working time of staff members needs some consideration. It may be roughly budgeted, but in order to budget, some estimate must be first made of where it is going now. Monthly reports should, therefore, include as far as possible, the various avenues in which any staff worker directs his time, whether administration, classes, effective time with cases, community work, or anything else. An attempt is being made to summarize these various points and to evaluate them for relative effectiveness.

The clinic feels the need for another stenographer to handle all the work of ten staff members and students. The clinic at present has one stenographer and one "Attendant Nurse," who must handle clients and telephone calls in the waiting room. The addition of another would help materially toward clearing up the waiting list and adding to the efficiency of the clinic.

		Boys	Girls	Total
I.	*Report of Case Load:*			
	A. Cases Carried During the Year:			
	1. Cases carried over from last year	–	–	233
	2. Intake:			
	a. New Cases Accepted:			

Ages:	*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*Others*	
Number of boys	–	–	1	3	4	4	9	9	7	10	10	8	11	10	19	38	143
Number of girls	–	1	–	1	4	6	2	4	3	5	10	4	3	5	4	8	60

	b. Old cases reopened from previous years		11
	3. Total cases open at some time in this year		447
	4. Cases closed during the year		368
	5. Cases carried forward to next year		79
B.	Closed Cases Followed Up but Not Reopened		86
II.	*Clinic Service:*		
	6. Number of clinic sessions		303
	7. Number of children attending clinic		209
	8. Number of visits to clinic by children		1,617
III.	*Types of Service Classification:*		
	Total Cases Open at Some Time in This Year:		
	9. Diagnostic cases		–
	10. Treatment cases		–
	11. Unassigned to service classification		447
IV.	*Sources Referring New Cases:*		
	12. Children's agency		13
	13. Clinic staff		–
	14. Community education		–
	15. Court		52
	16. Family agency		26
	17. Former client		–
	18. Friend or relative		49
	19. Health agency		11
	20. Physician		20
	21. School		31
	33. Self		1
	23. Others		–

Mental Health Clinic

During the year this Clinic has had three directors. As a consequence, this report cannot have the quality of cohesiveness. The present director has been in charge for three months and has in general continued the work so ably set up by the clinic's founder, Dr. James Watson. From time to time modifications have been added and improvements made in the quality and number of services rendered by the Clinic. Clinic functions are manifold and consist primarily of two types of services, first, to patients and second, to the various agencies referring patients. Included are the broader types of services arising from the many relationships enjoyed with the community at large. The general purpose is the furthering of the ideals of mental hygiene, to the general end of improving the state of our people.

Services to Patients

Referral of Patients: Patients are referred to the Clinic by the various social agencies in the city, by private physicians, by hospitals in the city or elsewhere in the State, by private persons. Occasionally the patients themselves make applications for service. Usually, the case is first presented by, and discussed with, the worker or group of workers or by the referring agent. At this preliminary presentation, decision is made as to whether clinic services are available to the patient in question. The patient is then seen and treatment instituted as may be required. Appendix B shows referring agencies and number of patients each referred.

Statistical Data: During the year, 101 individual patients were seen for a total of 515 hours. This number does not include those patients, the subject of conferences with workers, who never appeared for a first interview. The average time devoted to each patient was 5.66 hours.

Therapy: Results of treatment are on the whole gratifying, considering the essential hopelessness of so many of the cases seen.

Every effort has been made through conferences with workers and through investigation by the director to arrive at an understanding of the patients' problems by reference to his cultural background. The Director made several visits in company with workers to homes of non-patients in the Welfare Districts in order that a feeling for the culture of people on Welfare and in the lower income levels could be had. This endeavor was of definite value towards establishing a more sympathetic orientation on the patients' problems.

Treatment has in virtually all cases utilized both psychotherapy as well as the resources of social agencies of all kinds, for carrying out of psychotherapeutic procedures is not often possible without the aid of a complementary agency. This fact abides in the external factors which so frequently contribute to the establishment of the situation for which patient comes to the Clinic, and has reference to the economical and sociological forces at work in both the immediate and remote background.

Diagnostic Classification: The types of disorder met with include the whole range of morbidity from frank psychosis to conditions wherein no psychiatric problem exists. They are tabulated in Appendix C.

Services to Agencies

General Considerations: Two broad types of services are rendered the agencies; first, professional, and second, educational. These cannot always be clearly separated, for contacts effected by agencies for purposes of bringing patients to the Clinic invariably are handled from a psychiatric point of view with the definite purpose to instruct workers psychiatrically, and so to clarify the problem for which help is sought. The general idea is to help the workers to a better understanding of the people they are handling and to train them as far as possible in the recognition of morbid states.

Individual Contacts: As has been indicated, when the worker discovers a case which she thinks might benefit by psychiatric treatment, she usually calls at the Clinic and describes the situation in her own terms. During this interview discussion is free and all angles are examined carefully both by the director and under his direction by the worker. The interview always furnishes an opportunity for explanation to the workers of the possible psychiatric implications. This feature of the worker-physician relationship is emphasized by the physician who considers it important to ignore no opportunity to carry on the teaching work of the Clinic.

Group Contacts: At frequent intervals conferences are held with groups and between agencies. Each district of the Welfare Division meets regularly at the Clinic. The case is discussed, psychiatric implications gone into, and an appointment made to see the patient. The practice of reviewing all cases that the particular group has referred has been established for the purpose of keeping abreast of the progress of the case and to exchange reports. These conferences are informal and the workers are encouraged to ask questions on any phase of a problem which may occur to them. This practice has resulted in animated discussions which indicate a growing interest on the part of the workers. The subject matter of the discussions is not always purely psychiatric, but utilizes as well the sociological disciplines in all human relationships.

Teaching Activities

Clinics: Teaching activities are widely varied and consist of formal lectures and clinics, given regularly, and of the informal instruction dispensed at all meetings with workers or groups of workers. During the final two months of the fiscal year, four clinics for workers of the various agencies were held at the Worcester State Hospital. All agencies were invited by letter. The Clinics were well attended and appeared to have been of some value in the precise sense for which they were designed, namely, to show the workers the more obvious types of psychotic reaction. Practically all the workers attended one or more of these clinics. It is planned to continue clinics regularly at given intervals, perhaps twice a year, and in addition to hold clinics on request of authorized bodies. Thus, the course of lectures at the Girls' Club will be concluded by a clinic at the Worcester State Hospital.

1. *Lectures:* Board of Public Welfare:

A course of lectures was organized under the auspices of the Board of Public Welfare. These lectures are given on alternate weeks and will extend throughout the academic year. Attendance is not limited to welfare agents, but the members of all agencies have been invited to attend.

2. Girls' Club:

Not all agencies have been able to attend at the given hour, and as a result a parallel course has been designed and will be begun early in January for the benefit of the workers in the Girls' Club. This latter arrangement was felt to be peculiarly rich in possibilities because of the adolescent material this organization deals with.

3. Worcester State Hospital—Affiliate Nurses:

One course of four lectures on Mental Hygiene has been given to affiliate nurses at the Worcester State Hospital and a second series will be given early in January.

4. Memorial Hospital—Class of Nurses:

At the invitation of the Director of Education at the Memorial Hospital, a course of 14 lectures on Psychology will be begun in January.

Miscellaneous Activities

No rigid rules exist for seeing patients. If a patient is too feeble to come to the Clinic, physician willingly calls at the home, and the facilities of the Clinic are open out of hours to persons whose working hours preclude their coming in during the course of the working day.

Meetings are attended whenever they are accessible. This year Director attended a Conference of Social Workers in Boston, a meeting of the Massachusetts Society for Mental Hygiene in Salem, the annual meeting of the Worcester Associated Charities and the annual meeting of the Travelers Aid Society in Worcester.

Appendix A

TABULAR SUMMARY FOR THE YEAR

December, 1939–November, 1940

Total Consultation				669
WithWorkers			154	
Singly		54		
Groups		100		
Individual groups	89			
Inter-Agency groups	11			
With Patients			515	
Individual Patients seen				101
New Patients				91
Average Time per Patient				5.66 hours
Lectures Given				12
Clinics Given				4
Visits to Districts				3
Miscellaneous Meetings Attended				5

Appendix B

REFERRING AGENCIES

	Number referred
Advisory Council	1
Aid to Dependent Children	19
Associated Charities	10
Board of Public Welfare	37
Childrens' Friend Society	1
Clergymen	5
Other patients	1
Private individuals	2
Private physicians	2
Self-referred	1
Society for Prevention of Cruelty to Children	4
Swedish Charities	2
Worcester State Hospital	3
W.P.A. Certifying Office	1

Appendix C

CASE TYPES OF NEW PATIENTS

Psychopathic Personality	50

Simple adult maladjustment	47	
Dipsomania	1	
Homosexual	1	
Unclassified	1	
Psychoneurosis		9
Anxiety Hysteria	1	
Anxiety State	1	
Hysteria, unclassified	1	
Neurasthenia	1	
Obsessional neurosis	2	
Psychasthenia	3	
Schizophrenia		3
Mental Deficiency		4
With Juvenile Delinquency	2	
Without Psychosis	2	
Psychosis with Cerebral Arteriosclerosis		1
Manic-Depressive Psychosis, hypomanic		1
No Problem		9
Paranoia and Paranoid Conditions		3
Paranoid State, type undetermined	2	
Marital Discord, Paranoia	1	
Alcoholic, unclassified		1
Behavior Disorder, unclassified		1
Conduct Disturbance, unclassified		1
Family Discord, Rejection and Overprotection		1
Primary Behavior Disorder in Children		3

School Clinic Report

The School Clinic made 274 examinations of children from 22 towns during the year ending November 30, 1940.

Analysis reveals about 50% were referred because of Retardation; 38% referred because of School Problems, of which Reading Difficulty was predominant; about 9½% were Behavior or Personality Problems, and about 2½% were referred whose predominant problem was in the physical realm.

We annually find an increasing percentage of Reading Difficulty Problems, which are difficult for the clinic and unsatisfactory to the school, in part because of our inadequate study of the causative factors involved and ability to offer proper remedial teaching. Very few schools have Remedial Teachers, or even teachers reasonably well versed in handling Reading Problems.

Practically the same percentage of mentally retarded and borderline intelligence cases were referred as last year, namely about 77% of cases examined.

Recommendation for treatment in Child Guidance Clinic was made in about 1½%, of whom very few may be expected to receive such study. About 1% were recommended for Psychiatric treatment, in the school, as compared with 3% last year of whom very few could be seen more than once because of lack of time.

Special Class treatment was recommended for 50%, practically the same as last year. Special Classes are functioning in about 50% of the towns in which examinations were made, which compares very favorably with 10% eight years ago. Most School Superintendents, if not all, are well aware of the need but are holding back because of lack of room or other economic reasons. There appears to be a scarcity of well trained teachers with the right personality for the job, and lack of proper equipment in the room.

Willing co-operation was given by most school staffs but in several towns new school nurses had been appointed, and without a little training in acquiring histories much failure was apparent in acquiring information pertinent to much understanding of the problems involved. Likewise some teachers had difficulty in properly giving and scoring school achievement tests resulting in extra work for our psychologists, and in some cases incomplete correlation charts for presentation to the school superintendent with a list of recommendations. The number of Special Classes is slowly increasing.

Conferences with the school staff by the psychiatrist was offered in all towns and accepted in most with excellent co-operation and interest shown. In a few towns, however, the superintendent has not seen the value of calling interested teachers in for the conference.

School superintendents have in many cases expressed satisfaction in receiving a brief resume of the case with findings and recommendations. On several occasions they have been asked to enumerate on their list of pupils submitted for examination those with adequate intelligence, but there are a few who continue to fail to recognize the value to the clinic of this information.

Letters are written to school superintendents quoting the law under which the clinic functions, listing the minimum requirements for conducting a clinic, containing a distinct statement to the effect that until the basic requirements are complied with, children will not be examined. The letter also contains a few basic reasons explanatory of our demands.

Recommendations:

1. The clinic staff shall be provided with a psychiatric social worker whose duty shall be to confer with each school nurse assigned to acquire histories and assist her in acquiring a proper history as far as available, and confer with a special teacher assigned to give school achievement tests to assist her in understanding our requirements and scoring the blanks. The social worker shall also attend the final conference with the school staff to assist in bettering their understanding of environmental problems involved.

2. Some member of the psychological staff should give reading tests to proper cases and be prepared to confer with the child's teacher regarding the type of reading problems involved and ways of meeting the situation.

3. The small number of children recommended for psychiatric study should have an opportunity for at least a few interviews from the psychiatrist, and the family should be interviewed by the social worker. Likewise those recommended for study in a Child Guidance Clinic, who are unable to get to a clinic, should have the same treatment, as required, though in most cases over a longer period. In either type the chief problem is in educating parents and school in understanding problems involved and handling them.

4. School staff should be brought into general conference at least annually, at which time some good speaker should address them on educational or personality problems, and they should have the opportunity to discuss the problems confronting them.

5. School clinic staffs should meet in general conference annually to discuss general problems. (This was formerly carried out with Dr. Walter E. Fernald, and has been in session twice since Dr. Fernald's death, with Dr. Dayton).

Division of Public Relations

Believing that prevention of mental disorder can be achieved through the prompt recognition of incipient disorder the hospital has carried on a program of mental health education. This service also aids in building a better understanding of the work of the hospital by the community.

A descriptive booklet listing speakers is sent to community organizations inviting them to include a mental health program during the year.

Twenty-four staff members gave 238 talks to 12,261 people.

Total Number of Talks Given for the Year
Dec., 1939 through Nov., 1940

Name	*Number of Talks*	*Name*	*Number of Talks*
Dr. Angyal	4	Dr. Render	6
Dr. Barton	95	Dr. Rosenzweig	1
Dr. Blackman	3	Dr. Schaefer	3
Dr. Bryan	19	Mr. Searle	3
Mrs. Ekdahl	2	Mr. Shakow	3
Dr. Farrar	1	Mrs. K. Steele	4
Dr. Wm. Freeman	3	Dr. Wall	2
Dr. Kaufman	8	Miss Walton	6
Dr. Kemble	8	Dr. Watson	1
Dr. Looney	3	Mrs. Whitman	52
Dr. Malamud	2	Mr. Wise	71
Miss Misbach	4		
Dr. Molholm	3	24 Total	248

Business Activities

Sound business management is still another obligation of the hospital administration to the Commonwealth. The wise use of funds, the elimination of waste and planned economy of more than ordinary proportions returned to the state large unexpended balances in accordance with the program of the Department of Mental Health.

Steward's Department

Mr. Smith's resignation was a severe shock to the Worcester State Hospital and especially to the Steward's Office. In the more than twenty years of his connection with this hospital, Mr. Smith has left marks that will always remain. His policy in delegating responsibility to his assistants has proven indispensable in this emergency.

During the past year an accrual system of financial control was introduced in this state. It was very confusing at the start, but has now settled down to more or less of a routine. This accrual system is a step in the right direction. It is very gratifying to know that the need of definite financial control was anticipated by this hospital over five years ago.

It seems unnecessary to again call attention to the deplorable condition of the present laundry. The store room is the next department need that demands attention. When one considers that our present store room facilities are a series of basement rooms scattered about the various Ward Buildings, it can be seen that if a perpetual card inventory system were not in operation inventories would be impossible to control. This is a very essential department of the Hospital and it is hoped that upon completion of the new laundry, no time will be lost in renovating the present laundry building into a storehouse.

The personnel of the Department, aside from the resignation of Mr. Smith and a few minor changes, remains the same. Such will not be the case in the coming year. For with the surrounding shops working to full capacity and the prospects of higher wages in combination with the National Guards and Draftees leaving for Military Service, it will mean that the turnover of help in this hospital, especially in the lower salaried market, will be increased considerably.

During 1941 the tentative program of the Steward Department will be:

1. To consolidate the department under the Steward's Office.
2. To install a system of Flat Work control.
3. To attempt to devise ways and means to put the cafeteria employees on straight time.
4. To check menus and food cost more closely; so that a varied diet without increase in cost can be obtained.

Farm Report

The spring season opened with hay fields coming through in fine conditions, thanks to the heavy snow fall last winter. Large crops of alfalfa and timothy hay were harvested as a result. We continued a systematic program of soil analysis, crop rotation and added soil conservation to the program. All three of these practices helped greatly in growing an exceedingly heavy crop of squash, beans, peppers, and turnip.

Soil conservation is here to stay. It proved itself at our Hillside colony, where nearly all the land is situated on from five to twenty per cent grades and in previous years heavy rain storms usually ruined and washed a great many crops. This conservation work requires the practice of planting all cultivated crops in strips fifty to seventy-five feet wide across the general slope with an alternate strip of land. This practice never allows the water to converge in large quantities, thereby preventing gullying and erosion. The sod area remains in sod for a three year period; after that it is alternated with cultivated strips.

A new 16′ x 38′ silo was added to the main hospital. This allows a greater storage space for ensilage, either grass or corn, and now supplies us the entire year with good roughage.

The renovation of the main cow barn removed all but twelve of the forty-five pens and placed two rows through the middle of the barn, in chain tie-up system. This gave us room for the entire herd of milking cows and saved a great deal of cattle transporting. Formerly each cow had been transported two months before calving to Hillside and ten days after calving back to the main barn. Also the milk parlor has been eliminated. Under this new system one man was eliminated from the care of cattle to a badly needed tractor driver. We have operated under this new system for three complete months

and like it very much. This renovation made it possible to demolish the Hillside hay barn which had been badly damaged by the hurricane two years ago. This barn area was regraded and reseeded to hay.

A new manure pit was erected at the Hillside Colony which is large enough to accommodate all manure from swine, horses, and young stock. There are several advantages in storing manure in a pit versus the pile in the field method, such as follows:

a. Saves leaching of valuable plant food and ammonia from the manure.
b. Saves hauling every day from barn to pile.
c. Eliminates unsightly pile in field.
d. Needs moving only once in the spring and once in the fall.

Artificial insemination was again carried on in the dairy herd. This was the third trial by two different veterinarians in two years. The first two trials did not prove to be a paying proposition because conception occured only in a small percentage of the attempts. Natural physical breeding showed about sixty percent conception whereas the third trial completed in October gave about forty percent conception. The conclusion drawn from these three trials is as follows:

a. The technique of the veterinarian must be improved.
b. Proven herd sires must be used in order to improve the herd more rapidly through artificial insemination.
c. Proven herd sire must be used to help off-set the added veterinarian expense.
d. The veterinarian must get as high a conception rate as does the physical method.

Further study has been carried on in controlling mastitis. The use of sulfanilamide has proved to be of great value. This medication has cured almost all cases save the chronic which had been previously infected and continue to recur. An additional, new medication was used to control the chronic cases. It produced better than fifty-percent cures in chronic cases. This material was given us for trial purposes by a large drug concern.

The Heredity Herd Control Chart introduced in 1939 continues to prove worthy. Each year as a cow finishes her lactation it is added to her record until she finally leaves the herd. At that time an established record remains for years to come, as her offspring continues to make records, passing on the milking abilities down through the generations. We are now proving three young herd sires via daughter-dam milk and butter fat comparison. Through this system we expect to have at least two proven soon. If their daughters show a substantial gain in milk and butter fat—then artificial insemination should prove its worth and veterinarian fees could be overlooked.

A new Diesel trac-tractor was purchased to replace the old T-20 and it suits the needs of the farm much better. The fuel cost and operating expense for the first six months were about one-third of those of the T-20 when that was new. Moreover a badly needed snow plow was purchased to attach on this diesel job and this plow did very well during the last heavy storm the day before Thanksgiving.

The old coal pocket and cinder dump has been regraded and reseeded, thereby improving a very unsightly area west of the hospital near the new ball field.

One more tennis court was added to the premises giving us ample space to take care of all patients interested in this game.

Nearly a half mile of road was patched and resurfaced with asphalt. Also a mile of road was regraded and graveled to improve the wearing surface.

The swamp reclaiming work has been finished and now completely cultivated, adding a great deal of land for rotation purposes.

Statistics—1940

Some of the farm products raised were:

	Pounds		*Pounds*
String beans	40,429	Onions	62,698
Cabbage	75,329	Spinach	22,984
Carrots	111,540	Squash, summer	12,682
Celery	17,168	Squash, winter	117,600
Corn, sweet	34,283	Tomatoes	120,169
Lettuce	15,122	Turnips	176,232

The dairy herd of 64 cows produced 914,149 lbs. of milk.

The total heard of 64 cows and 73 heifers and calves consumed 138,359 lbs. of home produced hay, 601,825 lbs. of ensilage corn.

The total value of 64 cows $14,705.00; 73 heifers valued at $6,450.00 and 5 bulls at $1,660.00.

There were 227 spring pigs born valued at $2,890.00. These hogs when slaughtered dressed off 48,524 lbs. of pork valued at $3,881.94, besides selling to other institutions for breeders, 22 sows, 6 shoats, 6 pigs and 13 boars.

The grand total value of all farm produce and milk for the year was $66,745.00.

Engineer's Report

The winter of 1940 was unusually cold and the engineering department was kept very busy trying to keep patients and employees comfortably warm.

We find on windy days of comparable temperature that it costs $25.00 more for fuel. This is mostly due to lack of weather proofing.

A few storm windows have been installed on cottages, and carpenters have tightened a few windows in the hospital.

Plans have been made and money appropriated to automatically control the heat in Lowell and Hale Homes. This is to eliminate window temperature control now used.

The cost of Fuel Oil and Coal during the fiscal year of 1939 was:

The amount of oil used during 1939 was: 40,147.27

The amount of coal used during 1939 was:

Bit. —8,055.15
Scr. — 699.46 } 11,050.68
Anth.—2,296.07

The cost of Fuel oil and Coal during the fiscal year of 1940 was:

The amount of oil used during 1940 was: 50,541.87

The amount of coal used during 1940 was:

Bit. —9,190.09
Anth.—1,578.57 } 10,913.25
Scr. — 144.59

Electricity

Plans have been made to rewire Hale and Lowell Homes. The present wiring is old (not inclosed in conduit) and constitutes a fire hazard.

We have rewired the kitchen and bake shop and rooms adjoining.

The fluorescent lighting in the bake shop is a great improvement also over the sink near tin toom.

This new type of lighting gives us much better illumination with less current consumption.

The old wiring in kitchen at Summer Street Department was also renewed.

Plumbing repairs have been kept up and much old plumbing improved.

Plans are under way to renovate the plumbing in Folsom wards as this is our oldest and most out-of-date water section.

Hillside is now supplied with water from the town of Shrewsbury; this is better water and due to the increased pressure assures us of better fire prevention.

The brass pipe at Hillside is not suitable for the water and has been replaced by copper tubing.

The old six inch steel service main under Main Hospital is rusting away and will shortly be replaced by copper tubing, also the 3″ steel water main at Summer Street.

New stainless steel sinks have been installed in kitchens of Main Hospital and at Summer Street.

The plumbing at Lowell Home is progressing very slowly. We have not seen any significant action for two years toward completing the third and fourth floors.

Summer Street Department: The W. P. A. project for plumbing renovation was continued with the modernization of toilet facilities for patients on Wards 5, 11, 17, Sewing Room and Laundry. Employees' facilities were provided in the Industrial Room. Employees' facilities were renovated in the Laundry Building quarters and the fourth floor of the Administration Building. The painted plaster wall in the female patients' shower room proved to be unsatisfactory and was replaced with tile. The obsolete and deteriorated coal stoves in the kitchen were removed and gas stoves were installed in their place, resulting in a much cleaner kitchen.

In order to provide a steady source of hot water, a new 1,500 gallon domestic hot water heater was provided to take the place of our old heater's exceedingly limited capacity. The obsolete and unsatisfactory wiring and fixtures were replaced in the gereral kitchen with modern type materials.

The iron fence fronting on Summer Street, which suffered great damage during the 1939 hurricane, has been completely repaired.

Two new electrically heated food trucks have been placed in operation. This insures having the patients' food served in a hot and savory condition.

Fire Prevention

One thousand feet of unlined linen fire hose was used to replace old fire hose in the Administration buildings.

Plans are underway to install sprinklers in the Industrial building.

Fire drills have been held each week. Regular inspections have been made of fire fighting equipment.

Fire alarm box has been tested each week.

Fire extinguishers are charged each year. A request has been approved to change the sprinklers at Summer Street from a wet to a dry system.

We hope the Washburn building will be next on the renovation program to be fire proofed by removing the old wooden floors and replacing them with cement.

The Department of Mental Health has changed the rating of our plant from Class B to Class A; this has given our engineers a higher rate of pay for which we are grateful.

One engineer, Mr. Manning passed the examination for first class engineer.

From the data submitted from the Department of Mental Health we are lowering our cost per patient each year for heat, light and power.

Maintenance Department

The ordinary maintenance repair work has been carried on during the year as rapidly and completely as the mechanical personnel permitted. The upkeep of buildings from sixty to more than one hundred years old which are occupied by mental patients many of whom are deliberately destructive, means more in time, money and labor than would be the case in an ordinary building.

During the year the painters replaced 5,000 panes of glass. We used 4,000 feet of window cord, 400 gross of screws and 25 kegs of nails. All of this material went into routine maintenance of the building.

Three years ago all the wards in the Institution were painted by W. P. A. project. Due to a great deal of damage since that time, the wards have been thoroughly repaired and retouched by our own mechanics. All the wards are now in good condition.

We have also repaired and repainted some employees' living quarters.

The Bake Shop has been repaired and repainted, including all machinery.

At the Summer Street Branch, five wards have been repaired. This includes plastering ceilings, repair to base board and windows, and painting. Some painting has also been done to the employees' living quarters.

In the spring a repair program was started on the outside. This includes new doors where needed, and repair and painting doors and windows. It also includes all fire escapes. This program will continue in the spring.

Temporary repair work, including new woodwork, painting and replacement of glass was done to the greenhouse.

Owing to the small force of mechanics it is necessary to have the aid of outside mechanics. The following jobs were completed with the aid of outside help:—

One completely new brick porch at Farm House, and remainder of old wooden one thoroughly repaired and repainted.

Approximately forty-five dormers of Main Hospital were repaired and repainted.

The floors of the tunnels underneath the employees and patients' cafeterias, were cemented.

W. P. A. Project Report

Works Project Number 65-1-14-523 consists of transcription, tabulation, and statistical treatment of data obtained from psychological examinations accumulated over a period of years; and of data obtained from post-mortem examinations of sane and insane patients; recording historical facts and progress of fever treatments of patients; typing a cross-index of somatic and functional disturbances; typing material and preparing standard practice booklets for guidance in treatment and handling of patients; typing abstracts and bibliographies for the use of research workers; typing material assembled under the project to be used by doctors for purposes of analyses and for publication in scientific journals.

In the Psychology Department 7,237 test-items were recorded and checked and statistics computed on them; 7,550 pages were typed in connection with this research.

In the Medical Library 1,468 cards were typed on literature dealing with subjects under research.

In the Pathology Department 8,252 autopsy findings have been recorded and statistics computed on this data. A total of 3,684 cards have been typed for the pathological cross-index file.

Historical facts about 1,320 patients and records of their treatment have been tabulated; statistics on one-fourth of this tabulation data have been computed.

About three thousand medical records and charts were filed preparatory to typing a cross-index file of mental and physical illnesses. This filing system contains about one thousand cases thus far.

In the Administrative Department 201 booklets have been made which entailed typing 2,799 pages, cutting 201 stencils, assembling 35,450 pages and covering material with loose-leaf covers.

In the Statistics 1,488 pages have been typed and 1,403 cards containing abstracts of articles for a manual of tests for a study to be made by the Research Psychologist on "The Impairment of the Cerebral Cortex."

This work has been carried on by thirteen workers: one supervisor, seven typists and five clerks.

National Youth Administration: We have participated in the training of Youth in actual business settings under the National Youth Administration. Girls have served as clerks and typists in the clerical and business offices. Boys have been apprenticed in storerooms, engineers and carpenter and paint shops to skilled workmen.

Hospital Industries

Matron's Department: This department not only supervises the housekeeping but also directs the Mending Room and the Sewing Room both of which employs an average of 45 patients and 7 employees. The Mending Room repaired 52,883 articles and the Sewing Room darned an additional 9,124 stockings and socks. The Sewing Room made 56,485 new articles, all the linen and most of the clothing worn by the patients. The above figure includes 768 new pieces which were made in the Sewing Room of the Summer Street Department.

Laundry: The Laundry with old equipment needing frequent repairs has added new counting equipment. A total of 1,905,983 lbs. of clothing were laundered during the year by 61 patients and 15 employees. The monthly total of work done has shown a 30% increase during the twelve months. The addition of a new mangle made this possible but new washers are urgently needed.

Male Industrial Department: Male Industrial Shops employ 40 men with 5 employees doing shoe repairing, furniture upholstering, tailoring, printing, rug making, and making brushes.

Among the various items of work accomplished in the Male Industrial Department during year 1940, 6,154 dictaphone records shaved, 3,919 mattress retuffed, 1,539 articles of furniture repaired, 365 mens suits made by our tailor, 983 pair of shoes repaired.

VALUATION

November 30, 1940

Real Estate — Land, 584.95	$ 343,273.00
Buildings and betterments	2,498,973.51
	$2,842,246.51

FINANCIAL REPORT

To the Department of Mental Health:

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1940.

Statement of Earnings

Board of Patients		$60,130.05
Sales:		
Food	$1,945.61	
Clothing and materials	93.42	
Furnishings and household supplies	44.25	
Medical and general care	227.57	
Heat and other plant operations	106.00	
Garage and grounds	6.00	
Repairs ordinary	133.90	
Farm: (Cows, calves and pigs, $2,104.44; vegetables and tools, $238.32; and pump house, $1.00)	2,343.76	
Total Sales		4,900.51

Miscellaneous:		
Interest on bank balances	$95.00	
Rents	891.12	
P & D freight, $20.64; Tel. Com., $123.10; Court Fees, $12.40; Simmons Col., $30.00; P. O. Keys, $16.38; Births, etc., $6.00	208.52	
Total Miscellaneous		1,194.64
Total earnings for the year		$66,235.20
Total cash receipts reverting and transferred to the State Treasurer		66,255.57
Accounts receivable outstanding Dec. 1, 1939	$50.40	
Accounts receivable outstanding Nov. 30, 1940	20.03	
Accounts receivable decreased		$30.37
MAINTENANCE APPROPRIATION		
Balance from previous year, brought forward		$3,037.06
Appropriation, current year		1,089,401.55
Total		$1,092,438.61
Expenditures as follows:		
Personal services	$621,109.80	
Food	195,913.32	
Medical and general care	52,216.23	
Religious instruction	2,920.00	
Farm	22,084.34	
Heat and other plant operation	82,047.80	
Travel, transportation and office expenses	9,987.95	
Garage, $3,691.18; grounds, $1,353.74	5,044.92	
Clothing and materials	20,943.04	
Furnishings and household supplies	33,874.42	
Repairs ordinary	14,187.27	
Repairs and renewals	5,663.53	
Total maintenance expenditures		$1,065,992.62
Balances of maintenance appropriation, November 30, 1940		26,445.99
		$1,092,438.61
SPECIAL APPROPRIATIONS		
Balance December 1, 1939, brought forward		$61,118.17
Appropriations for current year		—
Total		$61,118.17
Expended during the year	$12,908.05	
Reverting to Treasury of Commonwealth		12,908.05
Balance November 30, 1940, carried to next year		$48,210.12

APPROPRIATION	Act or Resolve	Total Amount Appropriated	Expended during fiscal year	Total Expended to date	Balance at end of year
Plumbing—Summer Street Hospital	Chap. 234 1937	$12,300.00		$12,298.98	$1.02
Plumbing—Summer Street Hospital	Chap. 309 1939	17,300.00	$5,010.88	16,936.48	363.52
New Boilers, Stokers, etc.	Chap. 304 1936	270,000.00		268,857.72	1,142.28
X-Ray Equipment	Chap. 356 1938	8,000.00	351.04	7,763.98	236.02
Medical Equipment	Chap. 356 1938	5,000.00		4,968.76	31.24
Bake Ovens	Chap. 356 1938	6,550.00		6,535.23	14.77
Electric Wiring—Employees' Building	Chap. 356 1938	10,000.00		9,909.08	90.92
Renovation Plumbing	Chap. 497, 309 1938–39	14,000.00	958.14	11,280.02	2,719.98
Hurricane and Flood Damage	Chap. 507 1938	216,000.00	6,587.99	172,389.63	43,610.37
		$559,150.00	$12,908.05	$510,939.88	$48,210.12

PER CAPITA

During the year the average number of patients has been 2556.623
Total cost of maintenance, $1,065,992.62.
Equal to a weekly per capita cost of $8.0183.
Total receipts for the year, $66,255.57.
Equal to a weekly per capita of $.4913.
Total net cost of Maintenance for year, $999,747.05.
Net weekly per capita, $7.527.

Respectfully submitted,
MARGARET T. CRIMMINS,
Treasurer.

Financial statement verified.
Approved:

WALTER S. MORGAN,
Comptroller

STATEMENT OF FUNDS

November 30, 1940

Patients' Fund

Balance on hand November 30, 1939	$5,968.91	
Receipts	9,950.68	
Interest	95.00	$16,014.59
Expended	9,972.14	
Interest paid to State Treasurer	95.00	10,067.14
Balance on hand November 30, 1940		$5,947.45

Investments

Worcester County Institute for Savings	1,000.00	
Worcester Five Cents Savings Bank	500.00	
Worcester Mechanics Savings Bank	500.00	
Peoples Savings Bank	1,000.00	
Bay State Savings Bank	1,000.00	
Worcester Depositors Corp. (Class A Certificate)	37.50	
Balance Mechanics National Bank	1,689.01	
Cash on hand November 30, 1940	220.94	$5,947.45

Canteen Fund

Balance on hand November 30, 1939	$1,149.61	
Receipts to November 30, 1940	$22,633.42	$23,783.03
Expended to November 30, 1940		22,314.85
Balance on hand November 30, 1940		$1,468.18

Investments

Worcester Depositors Corp. (Class A Certificate)	$60.00	
Mechanics National Bank	987.32	
Cash on hand November 30, 1940	420.86	$1,468.18

Clement Fund

Balance on hand November 30, 1939	$1,000.00	
Income to November 30, 1940	22.50	$1,022.50
Expended to November 30, 1940		22.50
Balance on hand November 30, 1940		$1,000.00

Investments

Worcester County Institute for Savings	$1,000.00

Lewis Fund

Balance on hand November 30, 1939	$1,321.25	
Income to November 30, 1940	32.50	$1,353.75
Expended to November 30, 1940		53.75
Balance on hand November 30, 1940		$1,300.00

Investments

Worcester Five Cents Savings Bank	$1,300.00

Manson Fund

Balance on hand November 30, 1939	$1,164.66	
Income to November 30, 1940	28.45	$1,193.11
Expended to November 30, 1940		—
Balance on hand November 30, 1940		$1,193.11

Investments

Millbury Savings Bank	$1,193.11

Wheeler Fund

Balance on hand November 30, 1939	$1,015.51	
Income to November 30, 1940	25.00	$1,040.51
Expended to November 30, 1940		40.25
Balance on hand November 30, 1940		$1,000.26

Investments

Worcester Mechanics Savings Bank	$1,000.00	
Balance Mechanics National Bank	.26	$1,000.26

Rockefeller Research Project

Balance on hand November 30, 1939	$1,745.49	
Receipts to November 30, 1940	15,761.58	$17,507.07
Expended to November 30, 1940		15,156.72
Balance on hand November 30, 1940		$2,350.35

Investments

Worcester County Trust Co.	$2,350.35

STATISTICAL TABLES

As Adopted by the American Psychiatric Association Prescribed by the Massachusetts Department of Health

Table 1. *General Information*

(Data correct at end of institution year November 30, 1940)

Date of *opening* as a hospital for mental diseases, January 18, 1833.
Type of hospital: State.
Hospital plant:

Value of hospital property:	
Real estate, including buildings	$2,842,246.51
Personal property	401,243.72
Total	$3,243,490.23

Total acreage of hospital property owned, 584.95.
Additional acreage rented, 40.
Total acreage under cultivation during previous year, 180.79.
Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T
Superintendents	–	–	–	1	–	1
Assistant physicians	13	–	13	–	–	–
Clinical assistants	2	–	2	–	–	–
Total physicians	15	–	15	1	–	1
Stewards	–	–	–	1	–	1
Resident dentists	1	–	1	–	–	–
Pharmacists	1	–	1	–	–	–
Graduate nurses	4	65	69	1	–	1
Other nurses and attendants	130	152	282	4	11	15
Occupational therapists	5	5	10	–	–	–
Social workers	–	3	3	–	1	1
All other officers and employees	135	92	227	1	4	5
Total officers and employees	291	317	608	8	16	24

Classification by Diagnosis, September 30, 1940

Census of Patient Population at end of year:

	Actually in Hospital			Absent from Hospital but still on Books		
	M.	F.	T.	M.	F.	T
White						
Insane	1,132	1,197	2,329	250	318	568
Epileptics	1	–	1	–	–	–
Mental defectives	5	2	7	–	2	2
All other cases	6	3	9	–	2	2
Total	1,144	1,202	2,346	250	322	572
Other Races:						
Insane	28	27	55	1	4	5
Total	28	27	55	1	4	5
Grand Total	1,172	1,229	2,401	251	326	577

	M.	F.	T.
Patients under treatment in occupational-therapy classes, including physical training, on date of report	40	34	74
Patients in occupational therapy classes, including physical training, and employed also in general work of hospital	733	590	1,323
Patients employed in general work only	693	556	1,249
Voluntary patients admitted during year	11	5	16
Persons given advice or treatment in out-patient clinics during year	236	192	428

TABLE 2. *Movement of Patient Population for the Year Ended September 30, 1940*

(Data in all of the following tables are based on the Statistical Year, October 1, 1939 to September 30, 1940)

	Total			Regular Court Commitment (Insane)			Temporary Care			Observation			Voluntary		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books at beginning of year:															
In institution	1,213	1,206	2,419	1,206	1,202	2,408	–	–	–	7	2	9	–	2	2
On visit	202	208	410	202	208	410	–	–	–	–	–	–	–	–	–
On escape	4	1	5	4	1	5	–	–	–	–	–	–	–	–	–
In family care	44	97	141	44	97	141	–	–	–	–	–	–	–	–	–
Total	1,463	1,512	2,975	1,456	1,508	2,964	–	–	–	7	2	9	–	2	2
Admissions during year:															
First admissions	272	259	531	189	213	402	9	5	14	66	37	103	8	4	12
Readmissions	118	111	229	91	99	190	3	–	3	21	11	32	3	1	4
Total admissions	390	370	760	280	312	592	12	5	17	87	48	135	11	5	16
Transfers from other mental hospitals	5	12	17	5	12	17	–	–	–	–	–	–	–	–	–
Total received during year	395	382	777	285	324	609	12	5	17	87	48	135	11	5	16
Total on books during year	1,858	1,894	3,752	1,741	1,832	3,573	12	5	17	94	50	144	11	7	18
Discharged from books during year:															
As recovered	52	34	86	31	25	56	2	1	3	16	7	23	3	1	4
As improved	152	159	311	143	146	289	2	–	2	7	12	19	–	1	1
As unimproved	16	11	27	9	6	15	4	2	6	2	3	5	1	–	1
As without psychosis	72	23	95	14	2	16	2	2	4	52	16	68	4	3	7
Total discharged to community	292	227	519	197	179	376	10	5	15	77	38	115	8	5	13
Transferred to other mental hospitals	22	8	30	22	8	30	–	–	–	–	–	–	–	–	–
Died during year within hospital	121	104	225	113	95	208	2	–	2	6	9	15	–	–	–
Died on escape, visit or family care (not added in totals)	–	–	–	5	3	8	–	–	–	–	–	–	–	–	–
Total discharged, transferred and died during year	435	339	774	332	282	614	12	5	17	83	47	130	8	5	13
Patients remaining on books of hospital at end of year:															
In institution	1,172	1,229	2,401	1,158	1,225	2,383	–	–	–	11	3	14	3	1	4
On visit	195	231	426	195	230	425	–	–	–	–	–	–	–	1	1
On escape	10	1	11	10	1	11	–	–	–	–	–	–	–	–	–
In family care	46	94	140	46	94	140	–	–	–	–	–	–	–	–	–
Total	1,423	1,555	2,978	1,409	1,550	2,959	–	–	–	11	3	14	3	2	5

	M.	F.	T.
Average daily number of patients on books during year	1,436.24	1,542.17	2,978.41
Actually in institution during year	1,191.25	1,220.91	2,412.16
On visit	191.16	223.59	414.75
On escape	7.50	1.50	9.00
In family care	46.33	96.17	142.50
Number of patients actually remaining in institution September 30, 1940:			
State	1,107	1,126	2,233
Reimbursing	65	102	167
Ex-service patients paid by Federal Government	–	1	1
Number of non-insane patients in hospital at end of institution year:			
Mentally defective	5	2	7
Epileptic	1	–	1
Others	6	3	9

TABLE 3. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States[1]	189	179	368	89	88	74	86	82	65
Austria	–	1	1	2	2	2	–	–	–
Canada[2]	22	20	42	36	35	27	38	45	31
China	3	–	3	5	5	5	–	–	–
Czecho-Slovakia	3	–	3	3	3	3	–	–	–
Denmark	–	–	–	1	1	1	–	1	–
England	4	5	9	9	8	5	10	13	8
Finland	2	2	4	1	1	1	3	3	3
France	1	1	2	–	–	–	1	1	1
Germany	–	1	1	–	–	–	3	3	3
Greece	3	–	3	4	4	4	2	1	1
Holland	1	–	1	1	1	1	–	–	–
Ireland	9	21	30	40	45	37	47	46	42
Italy	12	9	21	21	19	19	14	12	12
Norway	–	–	–	1	1	1	1	–	–
Poland	4	6	10	8	9	8	10	10	10
Portugal	–	–	–	1	1	1	–	–	–
Russia	2	1	3	8	10	8	5	5	5
Scotland	–	2	2	5	2	1	4	4	4
Sweden	5	4	9	9	9	9	9	8	8
Wales	–	1	1	–	–	–	1	1	1
West Indies[3]	2	–	2	2	3	2	1	–	–
Other Countries	10	6	16	18	15	15	9	9	9
Unknown	–	–	–	8	10	8	15	15	11
Total	272	259	531	272	272	232	259	259	214

[1](Persons born in Hawaii, Porto Rico and the Virgin Islands should be recorded as born in the United States.)

[2]Includes Newfoundland.

[3]Except Cuba, Porto Rico and Virgin Islands.

Table 4. *Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born*

Age at Admission	Aggregate			NATIVE BORN													FOREIGN BORN																	
				Total			Parentage										Total			Time in United States before Admission															
							Foreign			Mixed			Native			Unknown				Under 5 years			5–9 years			10–14 years			15 years and over			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0–14 years	5	2	7	5	2	7	2	–	2	–	–	–	3	2	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
15–19 years	14	13	27	14	13	27	8	2	10	–	3	3	6	6	12	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
20–24 years	18	21	39	16	20	36	8	8	16	2	7	9	5	5	10	1	–	1	2	1	3	1	–	1	1	–	1	–	–	–	–	–	–	–	–
25–29 years	23	17	40	23	15	38	18	9	27	1	2	3	4	4	8	–	–	–	–	2	2	–	–	–	–	–	–	–	1	1	–	1	1	–	–	–
30–34 years	24	16	40	18	14	32	10	5	15	2	4	6	6	4	10	–	1	1	6	2	8	–	–	–	1	–	1	1	–	1	4	2	6	–	–	–
35–39 years	25	24	49	21	20	41	8	7	15	3	2	5	9	8	17	1	3	4	4	4	8	–	–	–	–	–	–	–	–	–	4	4	8	–	–	–
40–44 years	16	20	36	12	12	24	2	5	7	4	3	7	6	2	8	–	2	2	4	8	12	–	–	–	–	1	1	–	–	–	4	7	11	–	–	–
45–49 years	23	31	54	14	18	32	3	8	11	3	2	5	6	6	12	2	2	4	9	13	22	–	–	–	–	–	–	1	–	1	8	13	21	–	–	–
50–54 years	10	19	29	4	13	17	1	3	4	–	3	3	3	3	6	–	4	4	6	6	12	–	–	–	–	–	–	1	–	1	5	6	11	–	–	–
55–59 years	20	12	32	13	7	20	2	3	5	3	1	4	8	3	11	–	–	–	7	5	12	–	–	–	–	–	–	–	–	–	7	5	12	–	–	–
60–64 years	20	19	39	13	8	21	7	–	7	2	2	4	4	6	10	–	–	–	7	11	18	–	–	–	–	–	–	–	–	–	7	10	17	–	1	1
65–69 years	14	11	25	6	4	10	2	2	4	2	–	2	2	1	3	–	1	1	8	7	15	–	–	–	–	–	–	–	1	1	8	6	14	–	–	–
70–74 years	25	19	44	14	8	22	8	5	13	1	1	2	5	2	7	–	–	–	11	11	22	–	–	–	1	–	1	–	1	1	9	9	18	1	1	2
75–79 years	18	16	34	11	12	23	2	6	8	2	–	2	4	5	9	3	1	4	7	4	11	–	–	–	–	–	–	–	–	–	7	4	11	–	–	–
80–84 years	12	13	25	4	9	13	–	1	1	–	1	1	2	7	9	2	–	2	8	4	12	–	–	–	–	–	–	–	–	–	8	4	12	–	–	–
85 years and over	5	6	11	1	4	5	–	1	1	–	–	–	1	1	2	–	2	2	4	2	6	–	–	–	–	–	–	1	–	1	3	2	5	–	–	–
Total	272	259	531	189	179	368	81	65	146	25	31	56	74	65	139	9	18	27	83	80	163	1	–	1	3	1	4	4	4	8	74	73	147	1	2	3

TABLE 5. *Citizenship of First Admissions*

	M.	F.	T.
Citizens by birth	191	180	371
Citizens by naturalization	38	20	58
Aliens	17	26	43
First papers	4	–	4
Citizenship unknown	22	33	55
Total	272	259	531

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			With syphilitic meningo-encephalitis			With other forms of syphilis			With other infectious diseases			Alcoholic psychoses			Due to drugs, etc.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	6	5	11	1	1	2	–	–	–	–	–	–	1	–	1	–	–	–
Armenian	2	1	3	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Chinese	5	–	5	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Dutch and Flemish	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English	5	9	14	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Finnish	1	3	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
French	17	21	38	2	1	3	–	1	1	–	–	–	–	–	–	–	1	1
German	–	3	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Greek	4	1	5	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–
Hebrew	9	5	14	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Irish	38	42	80	–	–	–	–	–	–	–	–	–	4	1	5	–	–	–
Italian[1]	19	12	31	2	1	3	1	–	1	1	–	1	2	–	2	–	–	–
Lithuanian	10	8	18	–	–	–	–	–	–	–	–	–	2	–	2	–	–	–
Portuguese	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Scandinavian[2]	11	10	21	–	–	–	–	–	–	–	1	1	1	–	1	–	–	–
Scotch	2	4	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Slavonic[3]	14	10	24	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Welsh	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other specific races	3	–	3	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Mixed	116	112	228	5	1	6	1	2	3	–	1	1	18	6	24	1	3	4
Race unknown	8	12	20	–	1	1	–	–	–	–	–	–	–	1	1	–	–	–
Total	272	259	531	14	5	19	3	3	6	1	2	3	30	8	38	1	4	5

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses* — Continued

RACE	Traumatic psychoses			With cerebral arterio-sclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			Senile psychoses			Involutional psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2	–	–	–
Armenian	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Chinese	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dutch and Flemish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
English	–	–	–	1	1	2	–	–	–	–	–	–	2	1	3	–	–	–
Finnish	–	–	–	–	1	1	–	–	–	–	–	–	1	–	1	–	–	–
French	–	–	–	3	4	7	–	–	–	–	–	–	7	–	7	–	4	4
German	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
Greek	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Hebrew	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	1	1
Irish	–	–	–	10	9	19	1	–	1	–	1	1	5	11	16	–	6	6
Italian[1]	–	–	–	–	–	–	–	–	–	–	–	–	2	1	3	–	4	4
Lithuanian	–	–	–	1	–	1	–	–	–	–	–	–	1	–	1	–	4	4
Portuguese	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Scandinavian[2]	–	–	–	1	–	1	–	–	–	–	–	–	2	2	4	–	–	–
Scotch	–	–	–	–	2	2	–	–	–	–	–	–	–	1	1	–	–	–
Slavonic[3]	–	1	1	2	1	3	–	–	–	–	–	–	1	–	1	1	1	2
Welsh	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other specific races	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mixed	–	–	–	8	6	14	–	1	1	–	–	–	20	16	36	4	11	15
Race unknown	–	–	–	1	2	3	–	1	1	–	–	–	2	1	3	–	–	–
Total	–	1	1	29	26	55	1	2	3	–	1	1	44	36	80	6	31	37

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses* — Continued

RACE	Due to other metabolic diseases, etc.			Due to new growth			With organic changes of nervous system			Psycho-neuroses			Manic-depressive psychoses			Dementia praecox		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	–	–	–	–	–	–	1	–	1	–	–	–	–	1	1	1	1	2
Armenian	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Chinese	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	2	–	2
Dutch and Flemish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English	–	–	–	–	–	–	1	–	1	–	–	–	–	2	2	–	5	5
Finnish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2
French	–	1	1	–	–	–	–	–	–	1	1	2	1	1	2	1	4	5
German	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Greek	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2
Hebrew	–	–	–	–	–	–	–	–	–	1	–	1	1	2	3	4	–	4
Irish	–	–	–	–	–	–	2	3	5	3	1	4	3	2	5	2	4	6
Italian[1]	–	–	–	–	–	–	1	–	1	–	–	–	–	1	1	3	4	7
Lithuanian	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	2	6
Portuguese	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Scandinavian[2]	1	1	2	–	–	–	1	–	1	–	3	3	–	–	–	3	2	5
Scotch	–	–	–	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–
Slavonic[3]	–	–	–	–	–	–	–	–	–	–	1	1	2	–	2	3	5	8
Welsh	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Other specific races	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mixed	–	2	2	–	–	–	6	3	9	5	9	14	6	9	15	10	25	35
Race unknown	1	–	1	1	–	1	1	–	1	1	4	5	–	–	–	–	2	2
Total	3	4	7	1	–	1	14	7	21	11	19	30	13	18	31	34	60	94

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses* — Concluded

RACE	Paranoia and paranoid conditions			With psycho-pathic personality			With mental deficiency			Un-diagnosed psychoses			Without psychoses			Primary behavior disorders		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (Black)	–	–	–	–	–	–	–	–	–	–	–	–	2	–	2	–	–	–
Armenian	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Chinese	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Dutch and Flemish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Finnish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
French	–	–	–	–	1	1	–	1	1	–	–	–	2	1	3	–	–	–
German	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
Greek	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hebrew	–	–	–	–	–	–	–	–	–	–	–	–	2	2	4	–	–	–
Irish	–	–	–	1	1	2	1	2	3	–	–	–	6	1	7	–	–	–
Italian[1]	2	–	2	–	–	–	–	–	–	–	1	1	5	–	5	–	–	–
Lithuanian	–	–	–	–	1	1	–	–	–	–	–	–	1	1	2	1	–	1
Portuguese	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Scandinavian[2]	–	–	–	–	–	–	–	–	–	–	1	1	2	–	2	–	–	–
Scotch	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Slavonic[3]	–	–	–	1	–	1	1	–	1	–	1	1	1	–	1	1	–	1
Welsh	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other specific races	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	1	–	1
Mixed	1	1	2	–	2	2	4	3	7	–	–	–	25	9	34	2	2	4
Race unknown	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Total	3	1	4	2	5	7	7	6	13	–	3	3	50	15	65	5	2	7

[1]Includes "North" and "South".
[2]Norwegians, Danes and Swedes.
[3]Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			0-14 years			15-19 years			20-24 years			25-29 years			30-34 years			35-39 years			40-44 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	14	5	19	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	1	5	3	1	4
With other forms of syphillis	3	3	6	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	1	–	1	–	–	–
With other infectious diseases	1	2	3	–	1	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	30	8	38	–	–	–	–	–	–	–	–	–	2	–	2	7	1	8	2	2	4	5	–	5
Due to drugs, etc.	1	4	5	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	2	2	–	–	–
Traumautic psychoses	–	1	1	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	29	26	55	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other disturbances of circulation	1	2	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	44	36	80	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Involutional psychoses	6	31	37	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	4
Due to other metabolic diseases, etc.	3	4	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2	–	–	–
Due to new growth	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	14	7	21	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	2	–	2
Psychoneuroses	11	19	30	1	–	1	–	3	3	1	4	5	1	1	2	–	–	–	2	4	6	–	1	1
Manic-depressive psychoses	13	18	31	–	–	–	1	2	3	–	2	2	2	4	6	–	1	1	5	2	7	–	2	2
Dementia praecox	34	60	94	–	–	–	5	2	7	7	13	20	7	8	15	9	12	21	2	6	8	2	10	12
Paranoia and paranoid conditions	3	1	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
With psychopathic personality	2	5	7	–	–	–	–	–	–	–	1	1	1	1	2	–	–	–	1	1	2	–	2	2
With mental deficiency	7	6	13	–	–	–	–	1	1	2	–	2	1	1	2	2	–	2	1	1	2	–	–	–
Undiagnosed psychoses	–	3	3	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	1	1	–	–	–
Without psychoses	50	15	65	3	1	4	4	3	7	6	–	6	8	1	9	6	2	8	5	2	7	4	–	4
Primary behavior disorders	5	2	7	1	–	1	2	1	3	1	–	1	1	–	1	–	–	–	–	1	1	–	–	–
Total	272	259	531	5	2	7	14	13	27	18	21	39	23	17	40	24	16	40	25	24	49	16	20	36

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses* — Concluded

PSYCHOSES	45–49 years			50–54 years			55–59 years			60–64 years			65–69 years			70–74 years			75–79 years			80–84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	2	1	3	3	2	5	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other forms of syphillis	1	–	1	–	1	1	–	1	1	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	2	1	3	4	2	6	7	1	8	1	–	1	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Due to drugs, etc.	1	–	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Traumautic psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	1	–	1	–	–	–	1	–	1	6	3	9	3	4	7	13	11	24	4	6	10	–	–	–	1	2	3
With other disturbances of circulation	–	–	–	–	1	1	–	–	–	–	1	1	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	–	–	–	–	–	–	–	–	–	4	4	8	3	2	5	10	5	15	12	8	20	11	13	24	4	4	8
Involutional psychoses	1	12	13	1	7	8	2	6	8	2	2	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Due to other metabolic diseases, etc.	1	–	1	–	1	1	–	–	–	–	2	2	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Due to new growth	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	1	–	1	–	1	1	4	1	5	2	1	3	2	2	4	1	2	3	1	–	1	–	–	–	–	–	–
Psychoneuroses	2	4	6	–	1	1	1	1	2	1	–	1	1	–	1	–	–	–	–	–	–	1	–	1	–	–	–
Manic-depressive psychoses	1	–	1	1	1	2	2	1	3	–	3	3	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Dementia praecox	2	7	9	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Paranoia and paranoid conditions	1	–	1	1	–	1	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With psychopathic personality	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With mental deficiency	1	3	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Undiagnosed psychoses	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Without psychoses	5	2	7	–	2	2	1	–	1	4	–	4	3	–	3	–	1	1	1	1	2	–	–	–	–	–	–
Primary behavior disorders	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	23	31	54	10	19	29	20	12	32	20	19	39	14	11	25	25	19	44	18	16	34	12	13	25	5	6	11

TABLE 8. *Degree of Education of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Illiterate			Reads Only			Reads and Writes			Common School			High School			College			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	14	5	19	1	1	2	1	–	1	3	1	4	3	2	5	3	1	4	1	–	1	2	–	2
With other forms of syphilis	3	3	6	–	–	–	–	–	–	–	–	–	2	2	4	1	–	1	–	–	–	–	1	1
With other infectious diseases	1	2	3	–	–	–	–	–	–	–	1	1	–	1	1	1	–	1	–	–	–	–	–	–
Alcoholic psychoses	30	8	38	1	–	1	–	–	–	2	–	2	18	5	23	5	1	6	2	–	2	2	2	4
Due to drugs, etc.	1	4	5	–	–	–	–	1	1	–	–	–	1	3	4	–	–	–	–	–	–	–	–	–
Traumatic psychoses	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
With cerebral arteriosclerosis	29	26	55	5	2	7	–	–	–	2	2	4	12	14	26	1	2	3	–	1	1	9	5	14
With other disturbances of circulation	1	2	3	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	1	1	2
With convulsive disorders (epilepsy)	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Senile psychoses	44	36	80	4	1	5	1	–	1	7	1	8	22	14	36	3	5	8	–	–	–	7	15	22
Involutional psychoses	6	31	37	–	7	7	–	–	–	–	2	2	5	13	18	1	7	8	–	–	–	–	2	2
Due to other metabolic diseases, etc.	3	4	7	1	–	1	–	–	–	–	–	–	1	4	5	–	–	–	–	–	–	1	–	1
Due to new growth	1	–	1	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	14	7	21	2	–	2	–	–	–	1	–	1	7	2	9	2	1	3	1	–	1	1	4	5
Psychoneuroses	11	19	30	–	–	–	–	–	–	–	2	2	7	8	15	1	6	7	1	–	1	2	3	5
Manic-depressive psychoses	13	18	31	–	–	–	–	–	–	1	–	1	2	4	6	7	11	18	3	3	6	–	–	–
Dementia praecox	34	60	94	–	1	1	–	1	1	1	2	3	11	21	32	12	28	40	8	5	13	2	2	4
Paranoia and paranoid conditions	3	1	4	–	–	–	–	–	–	–	–	–	3	1	4	–	–	–	–	–	–	–	–	–
With psychopathic personality	2	5	7	–	–	–	–	–	–	–	–	–	2	3	5	–	2	2	–	–	–	–	–	–
With mental deficiency	7	6	13	1	3	4	–	–	–	2	–	2	2	3	5	–	–	–	–	–	–	2	–	2
Undiagnosed psychoses	–	3	3	–	–	–	–	–	–	–	–	–	–	3	3	–	–	–	–	–	–	–	–	–
Without psychoses	50	15	65	3	2	5	1	–	1	1	–	1	35	9	44	8	2	10	–	1	1	2	1	3
Primary behavior disorders	5	2	7	1	–	1	–	–	–	–	–	–	2	1	3	1	1	2	–	–	–	1	–	1
Total	272	259	531	19	17	36	3	2	5	20	11	31	136	114	250	46	68	114	16	10	26	32	37	69

TABLE 9. *Environment of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			0–2,499			2,500–9,999			10,000–24,999			25,000–49,999			50,000–99,999			100,000–249,999			500,000+			UNKNOWN		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	14	5	19	–	–	–	4	–	4	1	1	2	–	–	–	–	–	–	9	3	12	–	1	1	–	–	–
With other forms of syphilis	3	3	6	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	3	2	5	–	–	–	–	–	–
With other infectious diseases	1	2	3	–	–	–	–	–	–	1	1	2	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Alcoholic psychoses	30	8	38	2	–	2	2	–	2	4	2	6	–	–	–	2	1	3	17	5	22	–	–	–	3	–	3
Due to drugs, etc.	1	4	5	–	1	1	–	1	1	–	1	1	–	–	–	–	–	–	1	1	2	–	–	–	–	–	–
Traumatic psychoses	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
With cerebral arteriosclerosis	29	26	55	1	2	3	9	2	11	3	7	10	1	–	1	1	3	4	14	12	26	–	–	–	–	–	–
With other disturbances of circulation	1	2	3	–	–	–	–	–	–	–	2	2	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Senile psychoses	44	36	80	2	3	5	8	6	14	4	2	6	1	5	6	1	1	2	27	18	45	1	1	2	–	–	–
Involutional psychoses	6	31	37	1	–	1	1	5	6	1	4	5	–	3	3	–	–	–	3	17	20	–	–	–	–	2	2
Due to other metabolic diseases, etc.	3	4	7	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	2	3	5	1	–	1	–	–	–
Due to new growth	1	–	1	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	14	7	21	1	–	1	3	1	4	–	1	1	–	2	2	–	–	–	9	3	12	1	–	1	–	–	–
Psychoneuroses	11	19	30	1	2	3	4	3	7	1	2	3	–	–	–	–	2	2	4	9	13	1	1	2	–	–	–
Manic-depressive psychoses	13	18	31	3	2	5	–	3	3	2	2	4	1	3	4	1	2	3	4	5	9	1	–	1	1	1	2
Dementia praecox	34	60	94	2	5	7	2	9	11	3	8	11	2	6	8	2	3	5	16	27	43	5	1	6	2	1	3
Paranoia and paranoid conditions	3	1	4	3	–	3	–	–	–	–	–	–	1	–	1	–	–	–	2	1	3	–	–	–	–	–	–
With psychopathic personality	2	5	7	–	–	–	–	–	–	–	1	1	–	1	1	–	–	–	2	2	4	–	1	1	–	–	–
With mental deficiency	7	6	13	–	1	1	–	–	–	2	1	3	–	–	–	–	1	1	2	3	5	–	–	–	–	–	–
Undiagnosed psychoses	–	3	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	3	–	–	–	–	–	–
Without psychoses	50	15	65	–	–	–	9	3	12	7	–	7	6	1	7	2	3	5	25	7	32	1	–	1	–	1	1
Primary behavior disorders	5	2	7	–	–	–	1	–	1	–	–	–	–	–	–	–	1	1	3	1	4	–	–	–	1	–	1
Total	272	259	531	16	16	32	44	35	79	29	35	64	13	21	34	9	17	26	143	125	268	11	5	16	7	5	12

TABLE 10. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Dependent			Marginal			Comfortable			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	14	5	19	2	1	3	12	4	16	–	–	–	–	–	–
With other forms of syphilis	3	3	6	1	3	4	2	–	2	–	–	–	–	–	–
With other infectious diseases	1	2	3	1	2	3	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	30	8	38	6	–	6	23	8	31	–	–	–	1	–	1
Due to drugs, etc.	1	4	5	1	1	2	–	3	3	–	–	–	–	–	–
Traumatic psychoses	–	1	1	–	–	–	–	1	1	–	–	–	–	–	–
With cerebral arteriosclerosis	29	26	55	12	7	19	11	15	26	–	–	–	6	4	10
With other disturbances of circulation	1	2	3	–	–	–	1	1	2	–	–	–	–	1	1
With convulsive disorders (epilepsy)	–	1	1	–	–	–	–	1	1	–	–	–	–	–	–
Senile psychoses	44	36	80	21	14	35	16	16	32	1	–	1	6	6	12
Involutional psychoses	6	31	37	1	4	5	5	26	31	–	–	–	–	1	1
Due to other metabolic diseases, etc.	3	4	7	1	–	1	2	4	6	–	–	–	–	–	–
Due to new growth	1	–	1	–	–	–	–	–	–	–	–	–	1	–	1
With organic changes of nervous system	14	7	21	5	2	7	7	3	10	–	–	–	2	2	4
Psychoneuroses	11	19	30	1	3	4	10	14	24	–	–	–	–	2	2
Manic-depressive psychoses	13	18	31	2	1	3	11	16	27	–	–	–	–	1	1
Dementia praecox	34	60	94	8	6	14	25	53	78	–	–	–	1	1	2
Paranoia and paranoid conditions	3	1	4	–	–	–	3	1	4	–	–	–	–	–	–
With psychopathic personality	2	5	7	–	–	–	1	5	6	–	–	–	1	–	1
With mental deficiency	7	6	13	2	2	4	5	3	8	–	–	–	–	1	1
Undiagnosed psychoses	–	3	3	–	–	–	–	3	3	–	–	–	–	–	–
Without psychoses	50	15	65	18	5	23	31	9	40	–	–	–	1	1	2
Primary behavior disorders	5	2	7	–	–	2	2	2	4	–	–	–	1	–	1
Total	272	259	531	84	51	135	167	188	355	1	–	1	20	20	40

TABLE 11. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Abstinent			Temperate			Intemperate			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	14	5	19	–	5	5	7	–	7	6	–	6	1	–	1
With other forms of syphilis	3	3	6	1	1	2	2	2	4	–	–	–	–	–	–
With other infectious diseases	1	2	3	–	2	2	1	–	1	–	–	–	–	–	–
Alcoholic psychoses	30	8	38	–	–	–	–	–	–	30	8	38	–	–	–
Due to drugs, etc.	1	4	5	–	3	3	1	1	2	–	–	–	–	–	–
Traumatic psychoses	–	1	1	–	1	1	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	29	26	55	7	19	26	10	5	15	4	–	4	8	2	10
With other disturbances of circulation	1	2	3	–	1	1	–	–	–	–	–	–	1	1	2
With convulsive disorders (epilepsy)	–	1	1	–	–	–	–	–	–	–	–	–	–	1	1
Senile psychoses	44	36	80	16	27	43	19	5	24	5	1	6	4	3	7
Involutional psychoses	6	31	37	3	20	23	3	7	10	–	2	2	–	2	2
Due to other metabolic diseases, etc.	3	4	7	–	3	3	3	1	4	–	–	–	–	–	–
Due to new growth	1	–	1	–	–	–	–	–	–	–	–	–	1	–	1
With organic changes of nervous system	14	7	21	4	4	8	4	1	5	4	1	5	2	1	3
Psychoneuroses	11	19	30	2	15	17	4	3	7	4	–	4	1	1	2
Manic-depressive psychoses	13	18	31	3	14	17	9	3	12	1	1	2	–	–	–
Dementia praecox	34	60	94	10	43	53	19	16	35	4	–	4	1	1	2
Paranoia and paranoid conditions	3	1	4	–	1	1	2	–	2	1	–	1	–	2	–
With psychopathic personality	2	5	7	2	2	4	–	3	3	–	–	–	–	–	–
With mental deficiency	7	6	13	4	5	9	1	1	2	2	–	2	–	–	–
Undiagnosed psychoses	–	3	3	–	2	2	–	1	1	–	–	–	–	–	–
Without psychoses	50	15	65	21	8	29	11	3	14	17	3	20	1	1	2
Primary behavior disorders	5	2	7	2	1	3	3	–	3	–	1	1	–	–	–
Total	272	259	531	75	177	252	99	52	151	78	17	95	20	13	33

TABLE 12. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Single			Married			Widowed			Divorced			Separated		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	14	5	19	3	–	3	10	2	12	1	1	2	–	1	1	–	1	1
With other forms of syphilis	3	3	6	1	1	2	2	1	3	–	1	1	–	–	–	–	–	–
With other infectious diseases	1	2	3	1	1	2	–	–	–	–	1	1	–	–	–	–	–	–
Alcoholic psychoses	30	8	38	9	3	12	15	4	19	2	–	2	3	1	4	1	–	1
Due to drugs, etc.	1	4	5	1	–	1	–	2	2	–	1	1	–	1	1	–	–	–
Traumatic psychoses	–	1	1	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	29	26	55	7	4	11	6	5	11	12	17	29	2	–	2	2	–	2
With other disturbances of circulation	1	2	3	–	–	–	1	1	2	–	1	1	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	1	1	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	44	36	80	5	9	14	20	4	24	17	23	40	2	–	2	–	–	–
Involutional psychoses	6	31	37	1	7	8	4	19	23	–	4	4	1	–	1	–	1	1
Due to other metabolic diseases, etc.	3	4	7	–	1	1	–	1	1	2	2	4	–	–	–	1	–	1
Due to new growth	1	–	1	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	14	7	21	3	1	4	6	4	10	2	2	4	1	–	1	2	–	2
Psychoneuroses	11	19	30	3	11	14	7	6	13	1	2	3	–	–	–	–	–	–
Manic-depressive psychoses	13	18	31	4	6	10	8	10	18	–	2	2	1	–	1	–	–	–
Dementia praecox	34	60	94	28	25	53	6	31	37	–	2	2	–	2	2	–	–	–
Paranoia and paranoid conditions	3	1	4	–	–	–	3	1	4	–	–	–	–	–	–	–	–	–
With psychopathic personality	2	5	7	2	3	5	–	1	1	–	–	–	–	1	1	–	–	–
With mental deficiency	7	6	13	7	3	10	–	3	3	–	–	–	–	–	–	–	–	–
Undiagnosed psychoses	–	3	3	–	2	2	–	1	1	–	–	–	–	–	–	–	–	–
Without psychoses	50	15	65	24	8	32	19	3	22	4	1	5	3	2	5	–	1	1
Primary behavior disorders	5	2	7	5	1	6	–	1	1	–	–	–	–	–	–	–	–	–
Total	272	259	531	104	88	192	108	100	208	41	60	101	13	8	21	6	3	9

TABLE 13. *Mental Disorders of All Admissions, All Discharges, September 30, 1940, by Status*

MENTAL DISORDERS	ALL ADMISSIONS						ALL DISCHARGES							
	First Admissions			Readmissions			First Admissions				Readmissions			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	Rate	M.	F.	T.	Rate
Psychoses Due to or Associated with Infection:	18	10	28	5	–	5	7	8	15	79.3	4	–	4	65.5
Syphilis of the Central Nervous System:	17	8	25	5	–	5	7	5	12	68.9	4	–	4	71.4
Meningo-encephalitic type (general paresis)	14	5	19	5	–	5	6	4	10	64.1	2	–	2	46.5
Meningo-vascular type (cerebral syphilis)	1	–	1	–	–	–	–	–	–	–	1	–	1	333.3
With intracranial gumma	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other types	2	3	5	–	–	–	1	1	2	153.8	1	–	1	111.1
With epidemic encephalitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With acute chorea (Sydenham's)	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious disease	1	2	3	–	–	–	–	3	3	600.0	–	–	–	–
Post-infectious psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Psychoses Due to Intoxication:	31	12	43	9	5	14	36	8	44	248.5	9	1	10	142.8
Due to Alcohol:	30	8	38	9	3	12	35	5	40	23.8	9	–	9	134.3
Pathological intoxication	3	–	3	–	–	–	4	–	4	235.2	–	–	–	–
Delirium tremens	10	–	10	1	–	1	9	2	11	785.7	–	–	–	–
Korsakow's psychosis	2	4	6	1	–	1	2	–	2	125.0	1	–	1	500.0
Acute hallucinosis	2	2	4	1	–	1	5	2	7	291.6	2	–	2	333.3
Other types	13	2	15	6	3	9	15	1	16	164.9	6	–	6	109.0
Due to Drugs or Other Exogenous Poisons:	1	4	5	–	2	2	1	3	4	444.4	–	1	1	333.3
Due to gases	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Due to other drugs	1	4	5	–	2	2	1	3	4	500.0	–	1	1	333.3
Psychoses Due to Trauma:	–	1	1	1	–	1	3	–	3	250.0	–	–	–	–
Traumatic delirium	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Post-traumatic personality disorders	–	–	–	1	–	1	2	–	2	666.6	–	–	–	–
Post-traumatic mental deterioration	–	–	–	–	–	–	1	–	1	250.0	–	–	–	–
Other types	–	1	1	–	–	–	–	–	–	–	–	–	–	–
Psychoses Due to Disturbance of Circulation:	30	28	58	4	4	8	14	17	31	128.6	1	5	6	133.3
With cerebral arteriosclerosis	29	26	55	4	4	8	12	16	28	120.6	1	4	5	113.6
With cardio-renal disease	1	2	3	–	–	–	1	–	1	166.6	–	–	–	–
Other types	–	–	–	–	–	–	1	1	2	666.6	–	–	–	–
Psychoses Due to Convulsive Disorders (Epilepsy):	–	1	1	–	–	–	–	–	–	–	–	–	–	–
Epileptic deterioration	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Epileptic clouded states	–	1	1	–	–	–	–	–	–	–	–	–	–	–
Other epileptic types	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Psychoses Due to Disturbances of Metabolism, Growth, Nutrition or Endocrine Function:	53	71	124	7	10	17	9	21	30	107.9	1	6	7	116.6
Senile Psychoses:	44	36	80	2	4	6	3	8	11	69.6	–	–	–	–
Simple deterioration	30	24	54	1	1	2	1	4	5	55.5	–	–	–	–
Presbyophrenic type	4	4	8	–	1	1	1	1	2	153.8	–	–	–	–
Delirious and confused types	2	1	3	1	–	1	–	–	–	–	–	–	–	–
Depressed and agitated types	5	2	7	–	–	–	1	3	4	210.5	–	–	–	–
Paranoid types	3	5	8	–	2	2	–	–	–	–	–	–	–	–
Involutional psychoses:	6	31	37	4	6	10	5	9	14	142.8	1	6	7	200.0
Melancholia	6	16	22	4	4	8	4	6	10	172.4	–	5	5	238.0
Paranoid types	–	9	9	–	1	1	–	2	2	95.2	–	1	1	100.0
Other types	–	6	6	–	1	1	1	1	2	105.2	1	–	1	250.0
With diseases of the endocrine glands	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Exhaustion delirium	–	–	–	–	–	–	1	–	1	500.0	–	–	–	–
With other somatic diseases	3	4	7	1	–	1	–	4	4	210.5	–	–	–	–
Psychoses Due to New Growth:	1	–	1	–	1	1	–	–	–	–	–	2	2	1000.0
With intracranial neoplasms	1	–	1	–	1	1	–	–	–	–	–	2	2	1000.0
Psychoses Due to Unknown or Hereditary Causes, but Associated with Organic Changes:	14	7	21	2	1	3	1	1	2	54.0	1	–	1	58.8
With multiple sclerosis	–	–	–	1	–	1	–	1	1	1000.0	–	–	–	–
With paralysis agitans	1	–	1	–	–	–	–	–	–	–	–	–	–	–
With Huntington's chorea	2	1	3	–	–	–	–	–	–	–	–	–	–	–
With other brain or nervous diseases	11	6	17	1	1	2	1	–	1	33.3	1	–	1	71.4
Disorders of Psychogenic Origin or Without Clearly Defined Tangible Cause or Structural Change:	70	109	179	64	82	146	75	72	147	107.9	53	60	113	111.3
Psychoneuroses:	11	19	30	3	8	11	10	13	23	469.3	7	6	13	419.3
Anxiety hysteria	1	5	6	–	2	2	1	3	4	500.0	–	1	1	500.0
Conversion hysteria:														
Anesthetic type	–	–	–	–	1	1	–	–	–	–	–	1	1	1000.0
Hyperkinetic type	1	–	1	–	–	–	1	–	1	1000.0	–	–	–	–
Paresthetic type	–	1	1	–	–	–	–	1	1	1000.0	–	–	–	–

All Deaths, 1940, All Cases in Residence and All Cases Out on of Admission and Sex

All Deaths								Resident Population						Patients Out on Visit, etc.					
First Admissions				Readmissions				First Admissions			Readmissions			First Admissions			Readmissions		
M.	F.	T.	Rate	M.	F.	T.	Rate	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
12	5	17	101.1	3	1	4	76.9	90	46	136	30	14	44	17	4	21	5	4	9
12	4	16	104.5	3	–	3	62.5	85	40	125	30	11	41	17	4	21	5	3	8
12	4	16	116.7	2	–	2	55.5	79	32	111	24	8	32	15	4	19	5	2	7
–	–	–	–	–	–	–	–	3	1	4	–	1	1	1	–	1	–	1	1
–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–
–	–	–	–	1	–	1	111.1	3	7	10	–	2	2	1	–	1	–	–	–
–	–	–	–	–	1	1	333.3	4	4	8	5	2	7	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
–	1	1	600.0	–	–	–	–	1	–	1	–	1	1	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	1	1
5	–	5	33.5	2	–	2	35.0	87	13	100	37	8	45	19	9	28	12	1	13
5	–	5	35.4	2	–	2	37.0	85	11	96	37	6	43	19	8	27	12	1	13
1	–	1	62.5	–	–	–	–	11	–	11	2	–	2	1	–	1	1	–	1
–	–	–	–	–	–	–	–	2	–	2	–	–	–	1	–	1	1	–	1
–	–	–	–	–	–	–	–	4	4	8	–	1	1	2	4	6	–	–	–
1	–	1	55.5	–	–	–	–	8	2	10	3	–	3	4	2	6	1	–	1
3	–	3	35.7	2	–	2	44.4	60	5	65	32	5	37	11	2	13	9	1	10
–	–	–	–	–	–	–	–	2	2	4	–	2	2	–	1	1	–	–	–
–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	1	2	3	–	2	2	–	1	1	–	–	–
1	–	1	111.1	–	–	–	–	4	1	5	1	1	2	2	1	3	1	–	1
1	–	1	500.0	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	1	–	1	1	–	1	1	–	1
–	–	–	–	–	–	–	–	3	–	3	–	1	1	–	–	–	–	–	–
–	–	–	–	–	–	–	–	1	–	1	–	–	–	1	1	2	–	–	–
40	24	64	284.4	3	5	8	190.4	63	67	130	12	16	28	6	10	16	1	2	3
38	22	60	277.7	3	5	8	195.1	61	67	128	12	16	28	6	10	16	1	2	3
1	2	3	500.0	–	–	–	–	2	–	2	–	–	–	–	–	–	–	–	–
1	–	1	333.3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1	1	2	222.2	–	1	1	66.6	5	2	7	9	5	14	–	1	1	–	–	–
1	–	1	142.8	–	–	–	–	4	2	6	7	3	10	–	–	–	–	–	–
–	1	1	1000.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	1	1	200.0	1	–	1	2	2	4	–	1	1	–	–	–
26	20	46	193.2	1	6	7	148.9	61	101	162	11	22	33	5	35	40	5	8	13
23	18	41	275.1	1	5	6	272.7	38	59	97	4	12	16	3	6	9	–	1	1
17	11	28	325.5	1	4	5	416.6	24	29	53	3	4	7	2	2	4	–	1	1
1	3	4	363.6	–	1	1	500.0	2	3	5	–	1	1	–	2	2	–	–	–
1	1	2	1000.0	–	–	–	–	–	–	–	1	–	1	1	–	1	–	–	–
2	2	4	222.2	–	–	–	–	5	5	10	–	–	–	–	1	1	–	–	–
2	1	3	93.7	–	–	–	–	7	22	29	–	7	7	–	1	1	–	–	–
–	–	–	–	–	1	1	43.4	17	39	56	5	10	15	2	26	28	5	7	12
–	–	–	–	–	1	1	83.3	13	19	32	3	3	6	1	15	16	5	4	9
–	–	–	–	–	–	–	–	–	11	11	1	6	7	–	8	8	–	2	2
–	–	–	–	–	–	–	–	4	9	13	1	1	2	1	3	4	–	1	1
–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
3	2	5	312.5	–	–	–	–	6	1	7	2	–	2	–	3	3	–	–	–
1	–	1	1000.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1	–	1	1000.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
4	7	11	323.5	–	1	1	76.9	16	5	21	6	5	11	1	2	3	–	4	4
–	–	–	–	–	–	–	–	–	–	–	2	–	2	–	–	–	–	–	–
–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
–	2	2	400.0	–	–	–	–	2	1	3	–	1	1	–	–	–	–	–	–
4	5	9	333.3	–	1	1	100.0	13	4	17	4	4	8	1	2	3	–	4	4
13	20	33	29.4	8	13	21	25.0	426	516	942	302	402	704	111	129	240	66	111	177
1	–	1	30.3	–	–	–	–	4	5	9	5	4	9	5	11	16	2	7	9
–	–	–	–	–	–	–	–	1	1	2	–	–	–	–	2	2	–	1	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

TABLE 13. *Mental Disorders of All Admissions, All Discharges September 30, 1940, by Status*

MENTAL DISORDERS	ALL ADMISSIONS						ALL DISCHARGES							
	First Admissions			Readmissions			First Admissions				Readmissions			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	Rate	M.	F.	T.	Rate
Mixed hysterical psychoneurosis	–	–	–	–	–	–	–	2	2	666.6	–	–	–	–
Psychasthenia or compulsive states:														
Obsession	1	1	2	–	–	–	–	–	–	–	–	–	–	–
Phobia	1	–	1	–	–	–	1	–	1	1000.0	–	–	–	–
Mixed compulsive states	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Neurasthenia	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hypochondriasis	–	–	–	–	–	–	–	–	–	–	–	1	1	333.3
Reactive depression	3	7	10	2	3	5	2	6	8	615.3	2	2	4	444.4
Anxiety state	–	–	–	–	–	–	–	–	–	–	2	–	2	666.6
Mixed psychoneurosis	4	5	9	1	2	3	5	1	6	352.9	3	1	4	444.4
Manic-depressive psychoses:	13	18	31	20	20	40	9	12	21	262.5	13	21	34	223.6
Manic type	3	7	10	10	14	24	2	4	6	315.7	6	10	16	188.2
Depressive type	3	6	9	7	4	11	3	7	10	294.1	4	9	13	302.3
Circular type	–	2	2	–	–	–	–	–	–	–	–	–	–	–
Mixed type	2	1	3	2	1	3	1	1	2	181.8	1	1	2	166.6
Perplexed type	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other types	5	2	7	1	1	2	3	–	3	230.7	2	1	3	333.3
Dementia praecox (schizophrenia):	34	60	94	31	43	74	46	41	87	85.7	29	27	56	80.8
Simple type	1	5	6	5	3	8	2	–	2	43.4	3	1	4	111.1
Hebephrenic type	3	6	9	3	5	8	10	3	13	60.7	5	3	8	46.5
Catatonic type	10	13	23	4	4	8	9	11	20	115.6	2	7	9	84.9
Paranoid type	7	29	36	10	21	31	18	16	34	91.6	9	11	20	92.1
Other types	13	7	20	9	10	19	7	11	18	85.7	10	5	15	92.5
Paranoia	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Paranoid conditions	3	1	4	2	–	2	3	2	5	75.7	1	2	3	100.0
With psychopathic personality	2	5	7	5	8	13	1	1	2	90.9	2	3	5	200.0
With mental deficiency:	7	6	13	3	6	6	6	3	9	71.4	1	1	2	24.3
Idiot	–	1	1	–	–	–	1	–	1	90.9	–	–	–	–
Imbecile	3	1	4	–	2	2	3	–	3	68.1	–	1	1	35.7
Moron	4	4	8	3	1	4	2	3	5	81.9	1	–	1	23.2
Unknown	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Undiagnosed Psychoses:	–	3	3	–	–	–	–	1	1	250.0	–	–	–	–
Without Psychosis:	50	15	65	26	8	34	46	16	62	861.1	26	7	33	785.7
Alcoholism	7	3	10	3	1	4	8	3	11	1000.0	4	1	5	1000.0
Drug addiction	–	2	2	–	–	–	–	2	2	1000.0	–	–	–	–
Disorders due to epidemic encephalitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Psychopathic personality:	19	2	21	14	2	16	18	2	20	909.0	13	2	15	833.3
With pathological sexuality	1	–	1	–	–	–	1	–	1	500.0	–	–	–	–
With pathological emotionality	6	1	7	5	–	5	6	1	7	1000.0	5	–	5	833.3
With asocial or amoral trends	5	–	5	3	1	4	4	–	4	800.0	3	1	4	1000.0
Mixed types	7	1	8	6	1	7	7	1	8	1000.0	5	1	6	750.0
Epilepsy	1	–	1	2	–	2	1	–	1	1000.0	1	–	1	500.0
Mental deficiency:	11	4	15	5	4	9	7	5	12	705.8	4	3	7	636.3
Idiot	–	1	1	–	–	–	–	1	1	1000.0	–	–	–	–
Imbecile	2	–	2	1	2	3	–	–	–	–	1	1	2	500.0
Moron	9	3	12	4	2	6	7	4	11	785.7	3	2	5	714.2
Other non-psychotic diseases or conditions	7	4	11	1	1	2	7	4	11	846.1	3	1	4	1000.0
No other condition	5	–	5	1	–	1	5	–	5	833.3	1	–	1	1000.0
Primary Behavior Disorders:	5	2	7	–	–	–	6	2	8	888.8	–	–	–	–
Simple adult maladjustment	3	2	5	–	–	–	4	2	6	857.1	–	–	–	–
Primary behavior disorders in children:														
Conduct disturbance	2	–	2	–	–	–	2	–	2	1000.0	–	–	–	–
Grand total	272	259	531	118	111	229	197	146	343	143.3	95	81	176	132.3

NOTE: — Admissions and discharges dc not include transfers.

All Deaths, 1940, All Cases in Residence and All Cases Out on of Admission and Sex — Concluded

All Deaths								Resident Population						Patients Out on Visit, etc.					
First Admissions				Readmissions				First Admissions			Readmissions			First Admissions			Readmissions		
M.	F.	T.	Rate	M.	F.	T.	Rate	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
–	–	–	–	–	–	–	–	1	–	1	1	–	1	–	1	1	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	2	–	2	–	1	1	1	–	1
–	–	–	–	–	–	–	–	–	–	–	1	1	2	–	1	1	–	–	–
1	–	1	100.0	–	–	–	–	–	1	1	–	2	2	1	2	3	1	2	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
–	–	–	–	–	–	–	–	2	2	4	1	1	2	3	4	7	–	3	3
–	2	2	37.7	3	2	5	46.2	9	21	30	27	42	69	12	15	27	16	28	44
–	–	–	–	1	1	2	33.3	1	5	6	15	27	42	3	4	7	9	16	25
–	1	1	43.4	1	1	2	64.5	5	7	12	7	9	16	3	8	11	5	7	12
–	–	–	–	–	–	–	–	–	2	2	–	1	1	–	1	1	–	1	1
–	1	1	125.0	1	–	1	125.0	–	5	5	2	3	5	2	1	3	–	4	4
–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–
–	–	–	–	–	–	–	–	3	2	5	2	2	4	4	1	5	2	–	2
9	14	23	26.9	5	9	14	23.8	345	397	742	226	292	518	74	88	162	43	62	105
1	1	2	52.6	–	–	–	–	19	15	34	16	7	23	3	5	8	8	1	9
3	2	5	26.4	–	5	5	32.8	70	101	171	43	96	139	8	17	25	7	13	20
2	4	6	41.0	–	2	2	21.9	49	71	120	32	48	80	13	14	27	11	4	15
3	5	8	27.3	2	1	3	16.0	106	144	250	70	94	164	37	42	79	8	22	30
–	2	2	10.6	3	1	4	30.5	101	66	167	65	47	112	13	10	23	9	22	31
–	–	–	–	–	–	–	–	–	5	5	–	2	2	–	–	–	–	–	–
–	1	1	18.1	–	2	2	71.4	14	35	49	7	16	23	8	3	11	–	2	2
–	1	1	66.6	–	–	–	–	5	7	12	5	9	14	2	5	7	1	5	6
3	2	5	45.8	–	–	–	–	49	46	95	32	37	69	10	7	17	4	7	11
2	–	2	181.8	–	–	–	–	4	4	8	2	2	4	–	–	–	–	1	1
1	2	3	73.1	–	–	–	–	15	20	35	11	14	25	2	1	3	1	1	6
–	–	–	–	–	–	–	–	26	16	42	17	18	35	8	6	14	3	4	7
–	–	–	–	–	–	–	–	4	6	10	2	3	5	–	–	–	–	1	1
–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	2	2	–	–	–
1	–	1	14.0	–	–	–	–	7	1	8	5	3	8	–	1	1	–	1	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–
–	–	–	–	–	–	–	–	2	–	2	2	1	3	–	–	–	–	–	–
–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–
–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	1	1	2	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–
–	–	–	–	–	–	–	–	4	–	4	1	2	3	–	1	1	–	1	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	2	–	2	–	2	2	–	–	–	–	–	–
–	–	–	–	–	–	–	–	2	–	2	1	–	1	–	1	1	–	1	1
1	–	1	76.9	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
104	77	181	88.8	17	27	44	39.6	759	753	1,512	413	476	889	161	195	356	90	131	221

TABLE 14. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	TOTAL			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T
With syphilitic meningo-encephalitis	8	4	12	–	–	–	8	4	12	–	–	–
With other forms of syphilis	3	1	4	–	–	–	3	1	4	–	–	–
With other infectious diseases	–	3	3	–	–	–	–	3	3	–	–	–
Alcoholic psychoses	44	5	49	20	2	22	23	3	26	1	–	1
Due to drugs, etc	1	4	5	–	3	3	1	1	2	–	–	–
Traumatic psychoses	3	–	3	1	–	1	2	–	2	–	–	–
With cerebral arteriosclerosis	13	20	33	–	1	1	11	18	29	2	1	3
With other disturbances of circulation	2	2	4	–	–	–	2	2	4	–	–	–
Senile psychoses	3	8	11	1	1	2	1	3	4	1	4	5
Involutional psychoses	6	15	21	3	4	7	3	11	14	–	–	–
Due to other metabolic diseases, etc	1	4	5	–	1	1	1	3	4	–	–	–
Due to new growth	–	2	2	–	–	–	–	2	2	–	–	–
With organic changes of nervous system	2	1	3	1	–	1	1	1	2	–	–	–
Psychoneuroses	17	19	36	7	7	14	9	11	20	1	1	2
Manic-depressive psychoses	22	33	55	5	4	9	16	28	44	1	1	2
Dementia praecox	75	68	143	10	7	17	56	58	114	9	3	12
Paranoia and paranoid conditions	4	4	8	–	1	1	4	3	7	–	–	–
With psychopathic personality	3	4	7	–	2	2	2	2	4	1	–	1
With mental deficiency	7	4	11	1	1	2	6	3	9	–	–	–
Undiagnosed psychoses	–	1	1	–.	–	–	–	–	–	–	1	1
Without psychoses	72	23	95	–	–	–	–	–	–	–	–	–
Primary behavior disorders	6	2	8	3	–	3	3	2	5	–	–	–
Total	292	227	519	52	34	86	152	159	311	16	11	27

TABLE 15. *Hospital Residence During This Admission of First Admissions Discharged During 1940*

MENTAL DISORDERS	TOTAL			Under 1 Month			1–3 Months			4–6 Months			7–11 Months		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	6	4	10	–	–	–	3	3	6	–	1	1	1	–	1
With other forms of syphilis	1	1	2	–	–	–	–	–	–	–	1	1	1	–	1
With epidemic encephalitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	3	3	–	1	1	–	–	–	–	2	2	–	–	–
Alcoholic psychoses	35	5	40	13	2	15	11	1	12	4	1	5	4	–	4
Due to drugs, etc.	1	3	4	–	1	1	–	2	2	–	–	–	1	–	1
Traumatic psychoses	3	–	3	–	–	–	2	–	2	1	–	1	–	–	–
With cerebral arteriosclerosis	12	16	28	4	1	5	6	8	14	1	–	1	1	2	3
With convulsive disorders (epilepsy)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	3	8	11	1	3	4	–	2	2	1	2	3	–	1	1
Involutional psychoses	5	9	14	–	1	1	2	2	4	1	2	3	1	3	4
Due to other metabolic diseases, etc.	1	4	5	–	1	1	1	2	3	–	–	–	–	–	–
Due to new growth	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	1	1	2	–	–	–	1	1	2	–	–	–	–	–	–
Psychoneuroses	10	13	23	5	6	11	4	5	9	–	2	2	1	–	1
Manic-depressive psychoses	9	12	21	1	–	1	4	7	11	1	2	3	–	1	1
Dementia praecox	46	41	87	2	1	3	18	17	35	13	9	22	5	7	12
Paranoia and paranoid conditions	3	2	5	–	–	–	2	1	3	–	–	–	–	1	1
With psychopathic personality	1	1	2	–	–	–	1	1	2	–	–	–	–	–	–
With mental deficiency	6	3	9	–	–	–	4	1	5	–	1	1	1	1	2
Undiagnosed psychoses	–	1	1	–	–	–	–	–	–	–	1	1	–	–	–
Without psychoses	46	16	62	20	8	28	24	8	32	2	–	2	–	–	–
Primary behavior disorders	6	2	8	5	–	5	1	2	3	–	–	–	–	–	–
Total	197	146	343	51	25	76	86	64	150	24	24	48	16	16	32
Average Hospital Residence in Years	.76	.70	.73	–	–	–	–	–	–	–	–	–	–	–	–

TABLE 15. *Hospital Residence During This Admission of First Admissions Discharged During 1940*—Concluded

MENTAL DISORDERS	1 year			2–4 years			5–9 years			10–19 years			20 Years Plus		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–
With other forms of syphilis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With epidemic encephalitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	1	1	2	–	–	–	–	–	–	–	–	–	2	–	2
Due to drugs, etc.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Traumatic psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	–	3	3	–	1	1	–	–	–	–	1	1	–	–	–
With convulsive disorders (epilepsy)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Involutional psychoses	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–
Due to other metabolic diseases, etc.	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Due to new growth	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Psychoneuroses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Manic-depressive psychoses	1	–	1	2	2	4	–	–	–	–	–	–	–	–	–
Dementia praecox	6	3	9	1	2	3	–	2	2	–	–	–	1	–	1
Paranoia and paranoid conditions	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
With psychopathic personality	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With mental deficiency	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Undiagnosed psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Without psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Primary behavior disorders	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	11	7	18	6	7	13	–	2	2	–	1	1	3	–	3
Average Hospital Residence in Years	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Mental Disorders*

CAUSES OF DEATH	TOTAL			With syphilitic meningo-encephalitis			With other forms of syphilis			With epidemic encephalitis			With other infectious diseases			Alcoholic psychoses			Traumatic psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Infectious and Parasitic Diseases:																					
Erysipelas	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tuberculosis of the respiratory system	5	4	9	–	–	–	–	–	–	–	–	–	–	1	1	1	–	1	–	–	–
Syphilis (non-nervous forms)	2	1	3	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Purulent infection, septicaemia (non-puerperal)	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cancer and Other Tumors:																					
Cancer and other malignant tumors	4	2	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tumor (non-cancerous)	1	2	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rheumatic Diseases, Nutritional Diseases, Diseases of the Endocrine Glands and Other General Diseases:																					
Diabetes	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the thyroid and parathyroid glands	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Blood and Blood-Making Organs:																					
Other diseases of the blood and blood-making organs	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Nervous System and Organs of Special Sense:																					
Meningitis	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cerebral hemorrhage	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cerebral embolism and thrombosis	9	4	13	9	4	13	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Epilepsy	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases of the nervous system	1	1	2	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Diseases of the organs of special sense (eye, ear and mastoid)	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Circulatory System:																					
Chronic endocarditis (valvular disease)	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the myocardium	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the coronary arteries and angina pectoris	9	3	12	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Arteriosclerosis	47	34	81	–	–	–	–	–	–	–	–	–	–	–	–	3	–	3	–	–	–
Diseases of the veins	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Diseases of the Respiratory System:																					
Bronchopneumonia (including capillary bronchitis)	11	15	26	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Lobar pneumonia	5	5	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pleurisy	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases (tubuculosis excepted)	3	2	5	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Diseases of the Digestive System:																					
Ulcer of the stomach and duodenum	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hernia, intestinal obstruction	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases of the intestines	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Genito-Urinary System:																					
Nephritis (acute, chronic and unspecified)	8	11	19	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases of the kidneys and ureters (puerperal diseases excepted)	2	2	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Violent and Accidental Deaths:																					
Other external causes	5	6	11	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	121	104	225	14	4	18	1	–	1	–	1	1	–	1	1	7	–	7	1	–	1

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Mental Disorders* — Continued

CAUSES OF DEATH	With cerebral arterio-sclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			Senile psychoses			Involutional psychoses			Due to other metabolic diseases, etc.			Due to new growth		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Infectious and Parasitic Diseases:																					
Erysipelas	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tuberculosis of the respiratory system	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	2	–	–	–
Syphilis (non-nervous forms)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Purulent infection, septicaemia (non-puerperal)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cancer and Other Tumors:																					
Cancer and other malignant tumors	2	–	2	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Tumor (non-cancerous)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Rheumatic Diseases, Nutritional Diseases, Diseases of the Endocrine Glands and Other General Diseases:																					
Diabetes	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the thyroid and parathyroid glands	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Blood and Blood-Making Organs:																					
Other diseases of the blood and blood-making organs	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Nervous System and Organs of Special Sense:																					
Meningitis	1	–	1	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Cerebral hemorrhage	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cerebral embolism and thrombosis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Epilepsy	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases of the nervous system	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the organs of special sense (eye, ear and mastoid)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Circulatory System:																					
Chronic endocarditis (valvular disease)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the myocardium	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the coronary arteries and angina pectoris	1	1	2	–	–	–	–	–	–	2	–	2	–	–	–	–	–	–	–	–	–
Arteriosclerosis	26	14	40	2	–	2	–	–	–	13	10	23	–	–	–	–	–	–	–	–	–
Diseases of the veins	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Respiratory System:																					
Bronchopneumonia (including capillary bronchitis)	5	4	9	–	–	–	–	1	1	4	4	8	–	–	–	–	1	1	–	–	–
Lobar pneumonia	1	1	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Pleurisy	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Other diseases (tuberculosis excepted)	–	–	–	–	–	–	–	–	–	1	–	1	–	1	1	–	–	–	–	–	–
Diseases of the Digestive System:																					
Ulcer of the stomach and duodenum	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Hernia, intestinal obstruction	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases of the intestines	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Genito-Urinary System:																					
Nephritis (acute, chronic and unspecified)	2	1	3	–	1	1	1	–	1	1	4	5	–	–	–	–	1	1	–	–	–
Other diseases of the kidneys and ureters (puerperal diseases excepted)	2	–	2	–	–	–	–	–	–	–	2	2	–	–	–	–	–	–	–	–	–
Violent and Accidental Deaths:																					
Other external causes	1	3	4	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Total	41	27	68	2	2	4	1	2	3	24	23	47	–	1	1	3	2	5	1	–	1

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Mental Disorders* — Concluded.

CAUSES OF DEATH	With organic changes of nervous system			Psycho-neuroses			Manic-depressive psychoses			Dementia praecox			Paranoia and paranoid conditions			With psychopathic personality			With mental deficiency			Without psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T	M	F	T
Infectious and Parasitic Diseases:																								
Erysipelas	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tuberculosis of the respiratory system	–	–	–	–	–	–	–	–	–	1	3	4	–	–	–	–	–	–	1	–	1	–	–	–
Syphilis (non-nervous forms)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
Purulent infection, septicaemia (non-puerperal)	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Cancer and Other Tumors:																								
Cancer and other malignant tumors	1	–	1	–	–	–	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–
Tumor (non-cancerous)	–	–	–	–	–	–	–	1	1	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Rheumatic Diseases, Nutritional Diseases, Diseases of the Endocrine Glands and Other General Diseases:																								
Diabetes	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the thyroid and parathyroid glands	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Diseases of the Blood and Blood-Making Organs:																								
Other diseases of the blood and blood-making organs	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Nervous System and Organs of Special Sense:																								
Meningitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cerebral hemorrhage	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cerebral embolism and thrombosis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Epilepsy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases of the nervous system	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Diseases of the organs of special sense (eye, ear and mastoid)	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	1	1	–	–	–
Diseases of the Circulatory System:																								
Chronic endocarditis (valvular disease)	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Diseases of the myocardium	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Diseases of the coronary arteries and angina pectoris	–	1	1	–	–	–	1	1	2	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–
Arteriosclerosis	2	4	6	–	–	–	1	1	2	–	4	4	–	1	1	–	–	–	–	–	–	–	–	–
Diseases of the veins	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Respiratory System:																								
Bronchopneumonia (including capillary bronchitis)	–	1	1	–	–	–	–	1	1	1	3	4	–	–	–	–	–	–	–	–	–	–	–	–
Lobar pneumonia	–	–	–	–	–	–	–	–	–	3	4	7	–	–	–	–	–	–	–	–	–	–	–	–
Pleurisy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases (tuberculosis excepted)	–	–	–	–	–	–	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Digestive System:																								
Ulcer of the stomach and duodenum	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hernia, intestinal obstruction	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases of the intestines	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Genito-Urinary System:																								
Nephritis (acute, chronic and unspecified)	–	–	–	1	–	1	–	–	–	1	3	4	–	1	1	–	–	–	–	–	–	–	–	–
Other diseases of the kidneys and ureters (puerperal diseases excepted)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Violent and Accidental Deaths:																								
Other external causes	–	1	1	–	–	–	–	–	–	2	–	2	–	1	1	–	–	–	–	–	–	–	–	–
Total	4	8	12	1	–	1	3	4	7	14	23	37	–	3	3	–	1	1	3	2	5	1	–	1

TABLE 17. *Age of Patients at Time of Death Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			15–19 years			20–24 years			25–29 years			30–34 years			35–39 years			40–44 years			45–49 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	14	4	18	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2	–	2	1	–	1
With other forms of syphillis	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With epidemic encephalitis	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
With other infectious diseases	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	7	–	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Traumatic psychoses	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	41	27	68	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
With other disturbances of circulation	2	2	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	1	2	3	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	1	1
Senile psychoses	24	23	47	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Involutional psychoses	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
Due to other metabolic diseases, etc.	3	2	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Due to new growth	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
With organic changes of nervous system	4	8	12	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Psychoneuroses	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Manic-depressive psychoses	3	4	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dementia praecox	14	23	37	1	–	1	–	1	1	2	3	5	1	1	2	–	2	2	2	1	3	–	3	3
Paranoia and paranoid conditions	–	3	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With psychopathic personality	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
With mental deficiency	3	2	5	–	–	–	2	–	2	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Without psychoses	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	121	104	225	1	–	1	2	1	3	2	3	5	2	2	4	–	5	5	5	2	7	5	4	9

TABLE 17. *Age of Patients at Time of Death Classified with Reference to Principal Psychoses* — Concluded

PSYCHOSES	50–54 years			55–59 years			60–64 years			65–69 years			70–74 years			75–79 years			80–84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	3	1	4	4	1	5	1	–	1	3	–	3	–	–	–	–	1	1	–	–	–	–	–	–
With other forms of syphillis	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With epidemic encephalitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	–	–	–	1	–	1	2	–	2	–	–	–	2	–	2	1	–	1	–	–	–	–	–	–
Traumatic psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	2	–	2	–	–	–	2	4	6	4	5	9	17	7	24	9	9	18	5	2	7	1	–	1
With other disturbances of circulation	–	1	1	–	–	–	–	1	1	–	–	–	2	–	2	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	–	–	–	–	–	–	–	2	2	–	–	–	4	3	7	6	7	13	11	6	17	3	5	8
Involutional psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Due to other metabolic diseases, etc.	–	–	–	1	–	1	–	1	1	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–
Due to new growth	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	–	1	1	–	1	1	–	1	1	1	3	4	1	1	2	1	1	2	–	–	–	–	–	–
Psychoneuroses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Manic-depressive psychoses	–	1	1	1	1	2	1	–	1	–	1	1	1	–	1	–	–	–	–	–	–	–	1	1
Dementia praecox	2	4	6	–	1	1	2	3	5	2	–	2	1	3	4	–	1	1	1	–	1	–	–	–
Paranoia and paranoid conditions	–	–	–	–	–	–	–	–	–	–	1	1	–	1	1	–	–	–	–	1	1	–	–	–
With psychopathic personality	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With mental deficiency	–	1	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Without psychoses	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Total	7	10	17	8	4	12	9	13	22	12	11	23	28	15	43	17	19	36	18	9	27	5	6	11

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital During All Admissions Classified According to Principal Psychoses*

PSYCHOSES	TOTAL			Less than 1 month			1–3 months			4–7 months			8–12 months			1–2 years			3–4 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	14	4	18	1	–	1	1	1	2	3	1	4	–	–	–	4	–	4	2	–	2
With other forms of syphilis	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With epidemic encephalitis	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	1	1	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	7	–	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Traumatic psychoses	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	41	27	68	7	3	10	5	4	9	6	3	9	7	5	12	10	6	16	3	2	5
With other disturbances of circulation	2	2	4	1	2	3	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
With convulsive disorders (epilepsy)	1	2	3	–	1	1	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–
Senile psychoses	24	23	47	2	6	8	6	5	11	6	5	11	4	–	4	2	2	4	1	1	2
Involutional psychoses	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
Due to other metabolic diseases, etc.	3	2	5	1	1	2	–	1	1	1	–	1	1	–	1	–	–	–	–	–	–
Due to new growth	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	4	8	12	1	1	2	1	2	3	1	2	3	–	–	–	–	1	1	1	1	2
Psychoneuroses	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Manic-depressive psychoses	3	4	7	–	–	–	–	–	–	–	1	1	–	–	–	1	2	3	–	–	–
Dementia praecox	14	23	37	–	1	1	–	–	–	2	1	3	–	2	2	4	2	6	1	3	4
Paranoia and paranoid conditions	–	3	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With psychopathic personality	–	1	1	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
With mental deficiency	3	2	5	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	2	–	2
Without psychoses	1	–	1	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Total	121	104	225	15	16	31	14	14	28	19	13	32	13	7	20	22	14	36	12	7	19

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital During All Admissions Classified According to Principal Psychoses* — Concluded

PSYCHOSES	5–6 years			7–8 years			9–10 years			11–12 years			13–14 years			15–19 years			20 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	2	–	2	–	–	–	–	2	2	1	–	1	–	–	–	–	–	–	–	–	–
With other forms of syphilis	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With epidemic encephalitis	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	2	–	2	1	–	1	–	–	–	–	–	–	1	–	1	–	–	–	2	–	2
Traumatic psychoses	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	1	–	1	–	2	2	1	1	2	–	–	–	–	–	–	1	1	2	–	–	–
With other disturbances of circulation	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	1	1	2	1	1	2	–	1	1	–	1	1	–	–	–	1	–	1	–	–	–
Involutional psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Due to other metabolic diseases, etc.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Due to new growth	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Psychoneuroses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Manic-depressive psychoses	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	1	–	1	–	1	1
Dementia praecox	–	1	1	–	2	2	–	2	2	–	–	–	1	1	2	3	3	6	3	5	8
Paranoia and paranoid conditions	–	1	1	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	1	1
With psychopathic personality	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With mental deficiency	–	1	1	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Without psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	8	5	13	2	5	7	1	8	9	1	3	4	3	1	4	6	4	10	5	7	12

TABLE 19. *Average Length of Hospital Residence During the Present Admission of First Admissions in Residence on September 30, 1940*

MENTAL DISORDERS	TOTAL			Under 1 Year			1–2 Years			3–4 Years			5–9 Years			10–19 Years			20–29 Years			30–39 Years			40 Years Plus		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	79	32	111	8	4	12	16	5	21	21	7	28	21	6	27	10	8	18	2	1	3	1	1	2	–	–	–
With other forms of syphilis	6	8	14	1	2	3	1	–	1	2	1	3	–	3	3	1	2	3	1	–	1	–	–	–	–	–	–
With epidemic encephalitis	4	4	8	–	–	–	3	1	4	–	–	–	1	–	1	–	3	3	–	–	–	–	–	–	–	–	–
With other infectious diseases	1	2	3	1	–	1	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	85	11	96	10	2	12	10	4	14	8	2	10	20	–	20	23	2	25	9	1	10	5	–	5	–	–	–
Due to drugs, etc.	2	2	4	1	2	3	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Traumatic psychoses	4	1	5	–	–	–	2	–	2	1	–	1	1	–	1	–	1	1	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	61	67	128	13	15	28	23	24	47	8	15	23	15	10	25	1	3	4	1	–	1	–	–	–	–	–	–
With other disturbances of circulation	2	–	2	–	–	–	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	5	2	7	–	–	–	2	–	2	–	–	–	–	–	–	3	2	5	–	–	–	–	–	–	–	–	–
Senile psychoses	38	59	97	24	19	43	6	14	20	1	8	9	5	10	15	2	8	10	–	–	–	–	–	–	–	–	–
Involutional psychoses	17	39	56	5	11	16	3	4	7	1	6	7	4	4	8	4	11	15	–	3	3	–	–	–	–	–	–
Due to other metabolic diseases, etc.	6	3	9	1	–	1	1	1	2	3	–	3	1	–	1	–	2	2	–	–	–	–	–	–	–	–	–
Due to new growth	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes or nervous system	16	5	21	9	2	11	2	–	2	3	–	3	2	2	4	–	1	1	–	–	–	–	–	–	–	–	–
Psychoneuroses	4	5	9	1	3	4	2	–	2	–	–	–	1	1	2	–	–	–	–	1	1	–	–	–	–	–	–
Manic-depressive psychoses	9	21	30	2	5	7	–	3	3	2	5	7	1	1	2	3	6	9	1	–	1	–	1	1	–	–	–
Dementia praecox	345	397	742	15	27	42	46	31	77	36	38	74	52	75	127	101	139	240	71	63	134	17	21	38	7	3	10
Paranoia and paranoid conditions	14	40	54	–	1	1	1	1	2	1	4	5	9	12	21	2	15	17	–	3	3	–	4	4	1	–	1
With psychopathic personality	5	7	12	–	1	1	–	–	–	–	–	–	1	1	2	1	4	5	2	–	2	1	1	2	–	–	–
With mental deficiency	49	46	95	3	2	5	7	4	11	2	–	2	14	13	27	14	19	33	6	6	12	2	2	4	1	–	1
Undiagnosed psychoses	–	1	1	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Without psychoses	7	1	8	6	–	6	1	–	1	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Primary behavior disorders	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	759	753	1512	100	97	197	127	94	221	90	87	177	149	138	287	165	226	391	93	78	171	26	30	56	9	3	12
Average Length of Hospital Residence in Years	10.37	10.80	10.58																								

TABLE 19A. *Average Length of Hospital Residence During the Present Admission of Readmissions in Residence on September 30, 1940*

MENTAL DISORDERS	TOTAL			Under 1 year			1–2 years			3–4 years			5–9 years			10–19 years			20–29 years			30–39 years			40 years plus		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	24	8	32	1	1	2	4	1	5	3	3	6	9	–	9	3	3	6	4	–	4	–	–	–	–	–	–
With other forms of syphilis	1	3	4	–	–	–	–	1	1	–	1	1	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–
With epidemic encephalitis	5	2	7	–	–	–	–	–	–	2	–	2	2	1	3	1	1	2	–	-	–	–	–	–	–	–	–
With other infectious diseases	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	37	6	43	3	3	6	4	–	4	7	–	7	8	2	10	7	–	7	8	1	9	–	–	–	–	–	–
Due to drugs, etc.	–	2	2	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Traumatic psychoses	1	1	2	–	–	–	–	1	1	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	12	16	28	2	2	4	3	3	6	3	6	9	3	3	6	1	1	2	–	1	1	–	–	–	–	–	–
With other disturbances of circulation	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	9	5	14	–	1	1	2	2	4	2	1	3	2	1	3	3	–	3	–	–	–	–	–	–	–	–	–
Senile psychoses	4	12	16	2	2	4	1	3	4	–	1	1	–	4	4	1	2	3	–	–	–	–	–	–	–	–	–
Involutional psychoses	5	10	15	1	2	3	1	3	4	–	1	1	2	–	2	1	1	2	–	3	3	–	–	–	–	–	–
Due to new growth	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	6	5	11	2	1	3	1	2	3	–	–	–	1	2	3	2	–	2	–	–	–	–	–	–	–	–	–
Psychoneuroses	5	4	9	–	3	3	–	–	–	1	–	1	4	–	4	–	1	1	–	–	–	–	–	–	–	–	–
Manic-depressive psychoses	27	42	69	7	11	18	3	3	6	5	5	10	7	8	15	3	9	12	–	4	4	2	2	4	–	–	–
Dementia praecox	226	292	518	14	24	38	27	21	48	25	32	57	50	67	117	57	74	131	40	70	110	12	3	15	1	1	2
Paranoia and paranoid conditions	7	18	25	2	–	2	–	2	2	–	1	1	3	9	12	1	4	5	1	2	3	–	–	–	–	–	–
With psychopathic personality	5	9	14	1	3	4	2	1	3	–	–	–	1	3	4	–	2	2	1	–	1	–	–	.	–	–	–
With mental deficiency	32	37	69	1	2	3	4	2	6	4	5	9	9	12	21	5	8	13	8	7	15	1	1	2	–	–	–
Undiagnosed psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Without psychoses	5	3	8	4	1	5	–	1	1	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–
Primary behavior disorders	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	413	476	889	41	57	98	52	46	98	52	56	108	102	113	215	88	108	196	62	89	151	15	6	21	1	1	2
Average Length of Hospital Residence in Years	10.97	11.11	11.05																								

TABLE 20. *Present Age of First Admissions in Residence on September 30, 1940, by Mental Disorders*

MENTAL DISORDERS	TOTAL			15–19 Years			20–24 Years			25–29 Years			30–34 Years			35–39 Years			40–41 Years			45–49 Years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	79	32	111	–	1	1	1	1	2	2	1	3	–	–	–	15	2	17	13	7	20	12	7	19
With other forms of syphilis	6	8	14	–	–	–	2	–	2	–	–	–	–	1	1	–	–	–	–	2	2	–	1	1
With epidemic encephalitis	4	4	8	–	1	1	2	1	3	–	–	–	1	1	2	–	–	–	–	1	1	–	–	–
With other infectious diseases	1	2	3	1	–	1	–	–	–	–	–	–	–	2	2	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	85	11	96	–	–	–	–	–	–	1	–	1	2	1	3	2	1	3	4	1	5	12	1	13
Due to drugs, etc.	2	2	4	–	–	–	–	1	1	–	–	–	–	–	–	–	1	1	–	–	–	1	–	1
Traumatic psychoses	4	1	5	–	–	–	–	–	–	–	–	–	2	–	2	–	–	–	1	–	1	1	–	1
With cerebral arteriosclerosis	61	67	128	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	1	1	2
With other disturbances of circulation	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	5	2	7	–	–	–	1	–	1	–	–	–	1	–	1	–	–	–	–	1	1	–	–	–
Senile psychoses	38	59	97	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Involutional psychoses	17	39	56	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	3	–	9	9
Due to other metabolic diseases, etc.	6	3	9	–	–	–	–	–	–	1	–	1	–	–	–	1	1	2	–	–	–	–	–	–
With organic changes of nervous system	16	5	21	1	–	1	–	–	–	–	–	–	2	1	3	2	1	3	2	1	3	2	–	2
Psychoneuroses	4	5	9	1	1	2	–	1	1	–	–	–	–	–	–	1	1	2	–	–	–	1	–	1
Manic-depressive psychoses	9	21	30	–	–	–	–	–	–	–	2	2	–	–	–	–	4	4	1	2	3	–	5	5
Dementia praecox	345	397	742	3	4	7	19	15	34	30	23	53	41	32	73	40	33	73	40	57	97	35	55	90
Paranoia and paranoid conditions	14	40	54	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	2	3	2	3	5
With psychopathic personality	5	7	12	–	–	–	–	–	–	–	1	1	1	1	2	–	1	1	–	–	–	1	–	1
With mental deficiency	49	46	95	–	1	1	7	4	11	6	1	7	8	3	11	4	3	7	1	7	8	6	7	13
Undiagnosed psychoses	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Without psychoses:																								
Psychopathic personality	2	–	2	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mental deficiency	4	–	4	–	–	–	2	–	2	–	–	–	1	–	1	–	–	–	1	–	1	–	–	–
Other, unclassified and unknown without psychosis	1	1	2	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	759	753	1512	7	8	15	34	24	58	40	28	68	59	42	101	65	49	114	64	85	149	74	89	163

TABLE 20 *Present Age of First Admissions in Residence on September 30, 1940, by Mental Disorders* — Concluded

MENTAL DISORDERS	50–54 Years			55–59 Years			60–64 Years			55–69 Years			70–74 Years			75–79 Years			80–84 Years			–85–89 Years			90 Years and Over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	10	6	16	12	1	13	8	3	11	4	3	7	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–
With other forms of syphilis	1	2	3	–	1	1	1	–	1	1	1	2	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
With epidemic encephalitis	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	12	2	14	16	–	16	11	1	12	9	2	11	8	2	10	7	–	7	1	–	1	–	–	–	–	–	–
Due to drugs, etc.	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Traumatic psychoses	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	1	3	4	4	8	12	11	7	18	15	9	24	11	19	30	10	13	23	6	1	7	2	3	5	–	2	2
With other disturbances of circulation	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	1	1	2	1	–	1	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	–	–	–	–	1	1	4	2	6	7	11	18	10	17	27	8	12	20	6	14	20	3	2	5	–	–	–
Involutional psychoses	4	10	14	2	5	7	5	5	10	3	3	6	2	3	5	1	1	2	–	–	–	–	–	–	–	–	–
Due to other metabolic diseases, etc.	–	–	–	2	–	2	–	1	1	1	–	1	1	–	1	–	–	–	–	1	1	–	–	–	–	–	–
With organic changes of nervous system	1	–	1	2	1	3	2	1	3	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Psychoneuroses	1	1	2	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Manic-depressive psychoses	3	2	5	2	–	2	–	2	2	3	2	5	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–
Dementia praecox	41	56	97	34	42	76	23	32	55	19	19	38	9	19	28	7	6	13	2	3	5	1	1	2	1	–	1
Paranoia and paranoid conditions	3	10	13	3	6	9	–	6	6	1	5	6	2	3	5	2	3	5	–	2	2	–	–	–	–	–	–
With psychopathic personality	–	–	–	–	1	1	1	1	2	2	–	2	–	–	–	–	2	2	–	–	–	–	–	–	–	–	–
With mental deficiency	3	6	9	6	8	14	1	3	4	4	2	6	2	1	3	–	–	–	–	–	–	–	–	–	1	–	1
Undiagnosed psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Without psychoses:																											
Psychopathic personality	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mental deficiency	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other, unclassified, and unknown without psychosis	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	84	100	184	85	74	159	68	64	132	72	57	129	48	67	115	36	37	73	15	21	36	6	6	12	2	2	4

TABLE 20A. *Present Age of Readmissions in Residence on September 30, 1940, by Mental Disorders*

MENTAL DISORDERS	TOTAL			15–19 Years			20–24 Years			25–29 Years			30–34 Years			35–39 Years			40–44 Years			45–49 Years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	24	8	32	–	–	–	1	–	1	–	–	–	3	–	3	2	2	4	3	–	3	5	2	7
With other forms of syphilis	1	3	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
With epidemic encephalitis	5	2	7	–	–	–	1	–	1	1	–	1	2	1	3	–	–	–	–	–	–	1	1	2
With other infectious diseases	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Alcoholic psychoses	37	6	43	–	–	–	–	–	–	1	–	1	–	–	–	1	–	1	1	–	1	3	1	4
Due to drugs, etc.	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Traumatic psychoses	1	1	2	–	–	–	–	–	–	–	1	1	–	–	–	1	–	1	–	–	–	–	–	–
With cerebral arteriosclerosis	12	16	28	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
With convulsive disorders (epilepsy)	9	5	14	–	–	–	–	1	1	2	1	3	2	1	3	1	1	2	1	–	1	3	1	4
Senile psychoses	4	12	16	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Involutional psychoses	5	10	15	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Due to other metabolic diseases, etc.	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	1	–	1
With organic changes of nervous system	6	5	11	–	–	–	–	2	2	2	–	2	–	1	1	1	–	1	–	–	–	1	–	1
Psychoneuroses	5	4	9	–	–	–	–	–	–	1	–	1	–	1	1	–	2	2	1	–	1	1	–	1
Manic-depressive psychoses	27	42	69	–	–	–	1	1	2	–	1	1	–	3	3	4	2	6	1	4	5	–	3	3
Dementia praecox	226	292	518	–	–	–	10	6	16	14	9	23	29	14	43	35	29	64	24	35	59	24	48	72
Paranoia and paranoid conditions	7	18	25	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2	2	4	–	2	2
With psychopathic personality	5	9	14	–	–	–	–	–	–	2	1	3	–	–	–	–	1	1	–	2	2	1	1	2
With mental deficiency	32	37	69	–	–	–	1	2	3	5	2	7	6	5	11	3	5	8	4	3	7	2	4	6
Without psychoses:																								
Personality disorders due to epidemic encephalitis	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Psychopathic personality	2	1	3	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Epilepsy	1	–	1	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Mental deficiency	1	2	3	1	1	2	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Total	413	476	889	1	1	2	14	12	26	30	16	46	42	26	68	48	44	92	38	47	85	43	66	109

TABLE 20A. *Present Age of Readmissions in Residence on September 30, 1940, by Mental Disorders* — Concluded

MENTAL DISORDERS	50–54 Years			55–59 Years			60–64 Years			65–69 Years			70–74 Years			75–79 Years			80–84 Years			85–89 Years			90 Years and Over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	–	1	1	7	–	7	2	–	2	1	2	3	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
With other forms of syphilis	–	2	2	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With epidemic encephalitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	4	1	5	8	–	8	2	3	5	5	1	6	4	–	4	7	–	7	1	–	1	–	–	–	–	–	–
Due to drugs, etc.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Traumatic psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	–	–	–	–	3	3	3	2	5	4	5	9	1	2	3	4	3	7	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	–	–	–	–	–	–	–	1	1	1	2	3	1	5	6	1	3	4	1	–	1	–	1	1	–	–	–
Involutional psychoses	–	3	3	2	1	3	1	2	3	1	1	2	1	1	2	–	–	–	–	1	1	–	–	–	–	–	–
Due to other metabolic diseases, etc.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	–	1	1	–	1	1	–	–	–	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Psychoneuroses	1	–	1	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Manic-depressive psychoses	4	8	12	3	6	9	5	6	11	4	2	6	4	3	7	1	2	3	–	1	1	–	–	–	–	–	–
Dementia praecox	28	35	63	18	37	55	21	35	56	9	18	27	8	11	19	3	10	13	1	2	3	2	1	3	–	2	2
Paranoia and paranoid conditions	1	2	3	1	3	4	2	2	4	–	2	2	–	3	3	1	–	1	–	1	1	–	–	–	–	–	–
With psychopathic personality	1	1	2	–	1	1	1	2	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With mental deficiency	2	3	5	2	5	7	4	4	8	3	–	3	–	2	2	–	2	2	–	–	–	–	–	–	–	–	–
Without psychoses:																											
Personality disorders due to epidemic encephalitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Psychopathic personality	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Epilepsy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mental deficiency	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	42	57	99	42	57	99	42	58	100	29	33	62	20	28	48	17	22	39	3	5	8	2	2	4	–	2	2

TABLE 21. *Family Care Statistics for Year Ended September 30, 1940*

	Males	Females	Total
Remaining in Family Care September 30, 1939	44	97	141
On Visit from Family Care September 30, 1939	8	12	20
Admitted to Family Care During the Year	51	68	119
Whole Number of Cases within the Year	95	165	260
Discharged from Family Care within the Year	49	71	120
Discharged outright	4	–	4
From Family Care to Escape Status	2	1	3
From Family Care to Visit Status	11	16	27
Returned to Institution	32	54	86
Returned to Institution from Escape	2	1	3
Returned to Institution from Visit	8	7	15
Remaining in Family Care September 30, 1940	46	94	140
On Visit from Family Care September 30, 1940	3	9	12
Average Daily Number in Family Care During Year	46.33	96.17	142.50
Supported by State	43	73	116
Private	3	21	24